COMPARATIVE PHILOLOGY, FRENCH MUSIC, AND THE COMPOSITION OF INDO-EUROPEANISM FROM FÉTIS TO MESSIAEN

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DECLARATION

This thesis is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the Preface and specified in the text. It is not substantially the same as any that I have submitted, or, is being concurrently submitted for a degree or diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text. I further state that no substantial part of my thesis has already been submitted, or, is being concurrently submitted for any such degree, diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text. It does not exceed the prescribed word limit for the relevant Degree Committee.

ABSTRACT

COMPARATIVE PHILOLOGY, FRENCH MUSIC, AND THE COMPOSITION OF INDO-EUROPEANISM FROM FÉTIS TO MESSIAEN

Peter Asimov-Hofmann

This thesis argues that the disciplines of comparative philology and linguistics exerted significant force on the priorities and techniques of musicologists and composers in *fin-de-siècle* France, and examines how ideologies of Indo-Europeanism (or aryanism), concomitant with comparative philology, generated efforts to 'sound out' Indo-Europeanism in music. Using a relational approach, dense interdisciplinary networks of philologists/linguists, musicologists, and composers are reconstructed to demonstrate how musicological appropriations of linguistic research reverberated in musical composition right through the 1950s. These contexts reveal how wide-ranging repertories emerged from ethnic-nationalist projects of reclaiming Indo-European 'patrimony'.

The thesis is in two Parts. Part I, '*Philologie comparée*, *musicologie*, and Indo-European hypotheses', is organised around four overlapping intellectual networks comprising comparative philologists and musicologists. Francophone musicologists' efforts to model their discipline on that of comparative philology are surveyed. Scholars discussed include Fétis, Gevaert, Bourgault-Ducoudray, Burnouf, Meillet, Aubry, Emmanuel, and Grosset. Arguments concerning the place of music between concepts of 'language' and 'race' are retraced, with special attention paid to musicologists' efforts to pinpoint quasi-morphological 'Indo-European' musical structures – in particular, 'modes' and 'metres' – construed as 'essential' and 'ancestral'.

Part II, 'Composing with philology: performances of authenticity and innovation', describes how the intellectual project elaborated in Part I infiltrated compositional practices. Close musical and paratextual readings show how composers legitimated experimentalism through 'performances' of philological 'authenticity'. Over time, musical parameters such as modes and metres are abstracted and assimilated into compositional lexicons. Composers discussed include Bourgault-Ducoudray, Saint-Saëns, Séverac, Roussel, and Emmanuel. This root system flourishes in the music of Olivier Messiaen, whose rhythmic technique is revisited in light of manuscript materials. From his borrowings of early Indian metres (*deśītāla*s) through his hyperformalist 'Mode de valeurs et d'intensités', Messiaen's rhythmic style is radically reinterpreted as a logical extension of francophone musicology's disciplinary and epistemological inheritance from comparative philology.

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This thesis generally limits references in footnotes to short form (author surname, short title), following the convention of the *Journal of the American Musicological Society*. Full references to published works may be found in the bibliography, which does not distinguish between 'secondary' sources, 'primary' sources, or scores. Single references to newspaper articles, short reviews, and encyclopedia entries are cited in footnotes only.

Appendix A ('Personalia') contains biographical notes to several recurring secondary figures. Names of individuals with entries are marked with an asterisk at first mention in a chapter.

The following RISM sigla are used to reference archival sources:

B-Bc	Brussels, Conservatoire de Bruxelles
B-Br	Brussels, Bibliothèque royale de Belgique
D-DSim	Darmstadt, Internationales Musikinstitut, Bibliothek und Archiv
F-ANT	Antony, Archives Maurice Emmanuel
F-BRcrbc	Brest, Centre de recherche bretonne et celtique, univ. de Bretagne occidentale
F-DI	Dieppe, Bibliothèque municipale
F-LYad	Lyon, Archives départementales du Rhône
F-LYam	Lyon, Archives municipales
F-NAbud	Nancy, Bibliothèque universitaire de droit
F-Nm	Nantes, Bibliothèque municipale
F-Pan	Paris, Archives nationales
F-Pcfa	Paris, Archives du Collège de France
F-Pgm	Paris, Médiathèque Mahler
F-Pmhb	Paris, Médiathèque Berlioz, CNSMDP
F-Pn	Paris, Bibliothèque nationale de France
F-Pnas	Paris, Bibliothèque nationale de France–Arts et spectacles
F-Po	Paris, Bibliothèque nationale de France–Opéra
F-Ps	Paris, Bibliothèque de la Sorbonne
F-RE	Rennes, Bibliothèque municipale
F-REc	Rennes, Conservatoire de rayonnement régional, bibliothèque
GB-Cu	Cambridge, University Library
US-AUS	Austin, Ransom Centre, University of Texas

All translations are mine unless otherwise noted; text in the source language is produced in footnotes. Except in direct quotation, this thesis adheres to the standards of the International Alphabet of Sanskrit Transliteration, formalised at the turn of the twentieth century but not universally observed in early-century French ('Nāṭyaśāstra' instead of 'Nâṭya-çâstra' for नाट्यशास्त्र, etc.).

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This thesis is dedicated to Ruth and Annerose, with love.

INTRODUCTION

This thesis explores the relationship between musical composition and contexts of intellectual history, in the belief that these contexts have shaped compositional practices in concrete and identifiable ways. Specifically, I argue that the discipline of comparative philology and linguistics, which served as an epistemological model for several early generations of francophone musicology, exerted significant force on the priorities and techniques of many French composers in the late nineteenth and early twentieth centuries. This force was channelled through interdisciplinary exchanges between philologists, musicologists, and musicians, often catalysed within overlapping social worlds, especially in Paris. Furthermore, in tracing this history, I examine how ethnic nationalist ideologies of Indo-Europeanism (or aryanism), which emerged concomitantly with comparative philology and were nourished and mutually constituted by related disciplines, grew entangled in musicological and musical engagements with these fields. I suggest that constructions of Indo-Europeanism in music, mediated by philology, contributed to compositional developments in French music history (in particular, with respect to 'modality' and 'metre') which have previously been studied under the purview of 'exoticism', 'classicism', and even 'formalism' – and I suggest that this philological mediation generated processes of musical 'abstraction' that facilitated Olivier Messiaen's experiments in hyperrationalism in the late 1940s, reaching an apotheosis in his piano étude, 'Mode de valeurs et d'intensités'.

This introduction comprises four main sections. First, I provide a brief historical background of comparative philology and Indo-Europeanism as intellectual currents in nineteenth-century Europe, and France particularly, as essential context for the study. I then offer a glimpse of the impulse which sparked my interest in this area, while situating my thesis among ongoing research and debates. Third, I dedicate some space to methodological discussion and reflection. Finally, I provide a brief chapter-by-chapter overview of the thesis.

Comparative philology and Indo-Europeanism: histor(iograph)ical backgrounds.

I do not aim here to rehearse a detailed history of nineteenth-century comparative philology, Indo-European studies, and their various disciplinary spin-offs; such histories have been told in sweeping breadth and meticulous detail over generations of scholarship. An early landmark was Raymond Schwab's *La Renaissance orientale* (1950), which surveyed in exhaustive

detail the work of philologists, translators, and scholars who gave rise to an era of orientalist fervour in the nineteenth century that rivalled, as his title suggests, the classical revivalism of the fourteenth century and beyond.[1] The book broke ground not least through its attention to 'secondary' figures who, in Edward Said's words, 'made possible the major work of Goethes, Hugos', and other monuments of Romantic literature.[2] If Schwab's work lacked a critical edge, his documentary rigour, combined with Said's Foucauldian attention to the relationship between knowledge formation and power exertion, in turn made possible Said's own major work: the deconstruction of orientalist scholarship (including philology), orientalist art, and the relationship between the two.[3] But Said's avowed decision to allow constructions of the Middle East to stand as a proxy for orientalism at large drew his attention away from the particularity of Indo-Europeanism, which had occupied a major position in Schwab's study – leaving a lacuna which more recent scholars have since addressed.[4] In this thesis, Said's scholarship thus represents an important epistemological model more than a historical resource. Meanwhile, the imperative to historicise Indo-Europeanism and its role in legitimating antisemitism with the stamp of science became especially urgent in the decades following World War Two. In 1971, Léon Poliakov published *Le Mythe aryen*, his study of constructions of Indo-Europeanism organised by national context, from the early nineteenth century through the twentieth. Poliakov demonstrated that aryanism was not the special purview of 'race' polemicists like Arthur de Gobineau – whom he characterised as a relatively fringe figure (even though Gobineau played an outsized role in shaping francophone music historiography via François-Joseph Fétis). Rather, Poliakov showed, aryanist ideology was significantly more widespread.[5] Maurice Olender built on Poliakov's work in the 1980s with his cogent analysis of how the binary opposition of 'aryan' and 'semite' structured nineteenth-century intellectual history, from Herder to Renan. Stefan Arvidsson has extended this analysis further forward into the twentieth century, drawing suggestive if cautious links between nineteenth-century Indo-Europeanist scholarship and the most extreme among its outgrowths, Nazi aryanism.[6]

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[1] Schwab, *La Renaissance orientale*.
[2] Said, *The World, the Text, and the Critic*, 257.
[3] Said, *Orientalism*.
[4] See, e.g., Inden, 'Orientalist Constructions of India'; Dharwadkar, 'Orientalism and the Study of Indian Literatures'; Breckenridge and van der Veer, 'Orientalism and the Postcolonial Predicament'; and Kaiwar, 'The Aryan Model of History and the Oriental Renaissance'.
[5] Poliakov, *Le Mythe aryen*.
[6] Olender, *Les Langues du paradis*; Arvidsson, *Aryan Idols*; for another succinctly powerful account, which likewise draws links through to Nazi Germany but also probes philology's epistemological roots in India prior to colonisation, see, Pollock, 'Deep Orientalism?'.

Recent histories of nineteenth-century scholarship continue to elucidate dimensions and inflections of Indo-Europeanism's history in various disciplines. Chief among these is comparative philology and linguistics[7] – the area of study which offered the first scientific basis for Indo-Europeanist essentialism in the realm of language, as will be outlined below – but also, the satellite disciplines of comparative religion and mythology,[8] the discipline of classics (and hellenism in particular),[9] and naturally, that of Indology itself.[10] The most wide-ranging, multidisciplinary, and decisive repudiation of Indo-Europeanism, from its earliest inklings to its recent incarnations on the tenacious fringes of archaeology, is Jean-Paul Demoule's *Mais où sont passés les Indo-Européens?* (2014), subtitled, 'the origin myth of the West'. Despite the abundant historicism and deconstruction of Indo-Europeanism in scholarship which traces its scientific and political forces through the nineteenth and twentieth centuries, the lasting impact of Indo-Europeanist philology upon cultural production has proven more elusive: as Robert Priest has written, this relationship has been 'more presupposed than demonstrated.'[11] A 2019 issue of the journal *Romantisme* devoted to 'l'Idée indo-européenne' is symptomatic in this regard: while its contributors trace nineteenth-century intellectual debates with admirable nuance, there is little attempt to link these to culture outside the academy.[12] Yet scholars today recognise the extent to which the methods and findings of comparative philology became 'hegemonic' to the development of the modern humanities.[13] Notions of Indo-Europeanism infiltrated empirical scientism just as they did Romantic spiritualism; they have justified colonialist and anticolonialist ideologies; they have been touted as proof of Jesus Christ's divinity, and as proof of the opposite. For Vasant Kaiwar (following Frederic Jameson), Indo-Europeanism lies behind the 'paradoxes and

[7] See, e.g., Rabault-Feuerhahn, *L'archive des origines*, and Turner, *Philology*, esp. ch. 9.
[8] See, e.g., Lincoln, *Theorizing Myth*
[9] See, e.g., Beneš, *In Babel's Shadow*. In the first volume of his *Black Athena*, a sweeping critique of the Classics discipline, Martin Bernal proposed that with the emergence of the Indo-European hypothesis in the nineteenth century came the reframing of ancient Greece as a civilisation descended from 'aryan' ancestors (an 'Aryan model' of history) rather than from Egyptian ancestors. Much of his historiographical diagnosis is compelling; however, Bernal seems (by scholarly consensus) to erode his credibility by venturing an elaborate archaeological argument in subsequent volumes; see also, Kaiwar, 'The Aryan Model of History and the Oriental Renaissance'.
[10] See, e.g., Lardinois, *L'invention de l'Inde*.
[11] Priest, 'Ernest Renan's Race Problem', 322.
[12] Aramini and Macé, eds., *Romantisme*, 185/3, 'L'Idée indo-européenne' (2019). Another characteristic example is Christopher Hutton's potted history of the 'aryan' hypothesis in the recent collection, *Orientalism and Literature* (2019); while the overview of the intellectual trends is excellent and rich, connections to literature are not drawn.
[13] Rabault-Feuerhahn, *L'archive des origines*, Part Two; Ahmed, *Archaeology of Babel*, 39; William Clark, quoted in Pollock, 'Future Philology?', 936.

antinomies that accompany the development of modernity'.[14] Cultural historians, therefore, should likewise be able to detect and reveal its imprints on works of art, literature, and music. Before addressing this directive, let us review some of the historical milestones in the emergence of the Indo-European hypothesis from the late eighteenth century through the nineteenth.

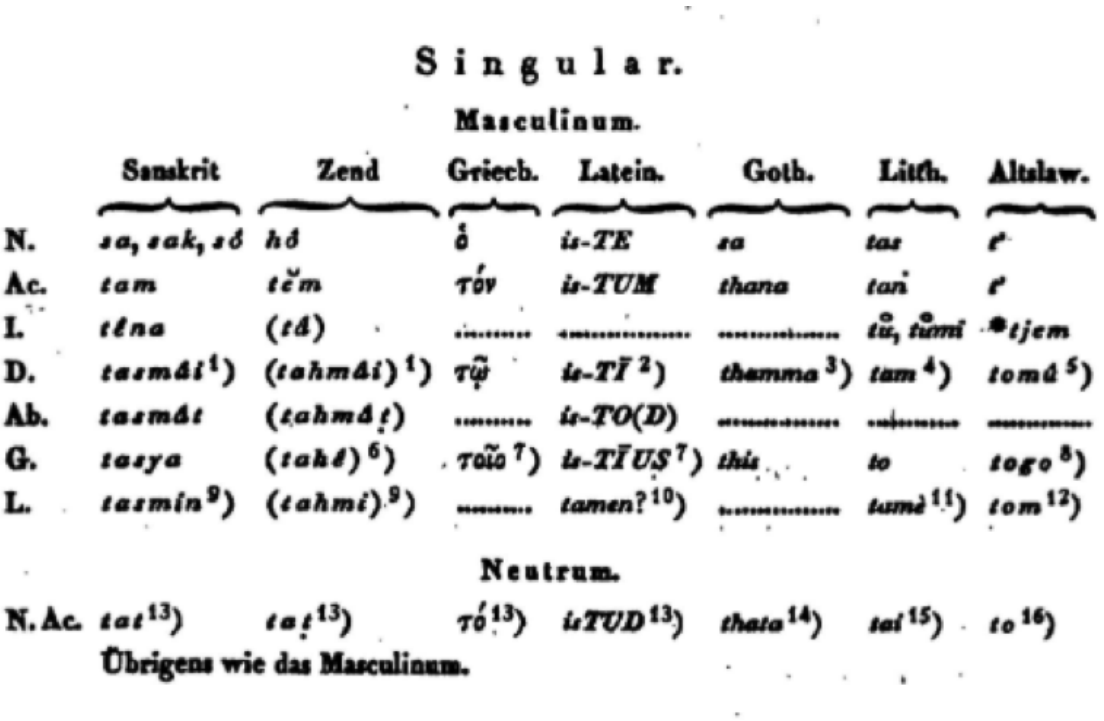
Conventional historiography has it that comparative philology 'began' when William Jones, the British jurist at the Supreme Court at Fort William, Calcutta, founded the Asiatick Society in 1784.[15] The well-known narrative goes as follows: Jones, who by the time of his arrival to British India was already an eminent polyglot, undertook study of Sanskrit initially out of contemptuous suspicion of the Indian scholars advising him on Hindu law. Having learnt Sanskrit, however, he also gained linguistic access to a vast tradition of literature and scholarship scarcely known to Europeans at the time. Jones's particular breakthrough was the observation of its morphological relationship to languages as seemingly diverse as Classical Greek and Latin, and the Romance, Germanic, Slavic, and Celtic language families, among others. This led Jones to theorise the existence of an 'older' linguistic fount undergirding them all, older even than Hebrew; this hypothetical 'Ursprache' later came to be known as 'proto-Indo-European'.[16] But Jones went further, conflating the spread of language with the spread of people, assimilating language to culture and to 'race', and thus suggesting that common linguistic roots bespoke shared heritage among 'Indo-Europeans'.[17] Jones elaborated

[14] Kaiwar, 'The Aryan Model of History and the Oriental Renaissance', 14.
[15] The William Jones origin story of comparative philology is self-consciously omnipresent in the historiography, and the precise nature of Jones's contribution is a topic of debate. Jones was far from the first European to read or translate Sanskrit literature; many earlier Europeans, often missionaries, had already begun to study the languages and texts they encountered traveling in India. Jean-Paul Demoule acknowledges Jones's 'discovery' as a 'canonical' postulate of the historiography of Indo-Europeanism (*Mais où sont passés les indo-européens?*, 15), but then argues that 'Jones's "discovery" is no more than a hagiographic reconstruction' (39); Gildas Salmon, following Thomas Trautmann, contends that Jones's singular impact in comparativism came from his concerted efforts to assimilate Hinduism to Biblical history ('Savoirs orientalistes et savoirs brahmaniques', 36). For another fresh interpretation of the ramifications of Jones's impact, taking particular account of his role as jurist at Calcutta, see Ahmed, *Archaeology of Babel*, especially Introduction and 'Third Stratum'.
[16] Nor was Jones the first European to draw these linguistic connections; Leibniz had proposed something like an Indo-European language group in 1710, and Marcus Zuerius van Boxhorn, noting similarities between Baltic, Celtic, and Persian languages among others, posited a proto-language in 1647. Jones's singularity lay in the force of his linguistic theories and the eventual institutionalisation of his comparative methods, prompted by the publication of his writings in the *Asiatick Researches*. Thomas Trautmann has demonstrated that Jones's morphological insights were afforded by his exposure to the Pāṇinian grammatical tradition's sophisticated internalist analysis of Sanskrit morphology (*Languages and Nations*, ch. 2); according to Gildas Salmon, it was Jones's grounding in Pāṇini, combined with his imperial mandate to implement 'Hindu law' alongside his own efforts to assimilate this legal framework to a Biblical one, that put him in a unique position to make the comparative linguistic connections he did ('Savoirs orientalistes et savoirs brahmaniques').
[17] Turner, *Philology*, 92–9.

these theories over the course of his ten *Anniversary Discourses*, which circulated rapidly across Europe in several translations. The manifest ancientness of Sanskrit upended European configurations of world order premised on the historical and divine priority of the Hebrew language.[18] It also brought about a reformulation of Europe's relationship to the Greco-Roman past, exemplified in the importance of Hindu India to the framing of Fustel de Coulange's famed *La Cité Antique* (1864). This overhaul of the historical imagination resulted in what Kaiwar has called the 'Aryan model of history', with its 'two main pillars, one Greek, one Indian'[19] – and it became inconceivable to study Latin and Greek without reference to Sanskrit precedents.[20]

However, Jones precipitated not only the apprehension of a 'new' (to Europeans) literary mine, but crucially, a means of producing knowledge from language itself. The method of comparing linguistic morphology as a means to chart human histories lies at the heart of nineteenth-century philology. In reaction to this methodological watershed, professorial chairs and academic institutions were established across Europe, and comparative philologists, adapting methodology and terminology from the natural sciences, forged a scientific discipline in their own right. The result was the growth of a new epistemological paradigm: as Siraj Ahmed has written, 'after Jones, language ceased to be the medium of knowledge – the veridical discourse of the Enlightenment, the crystalline lens through which one sees the truth – and became instead the privileged object of knowledge.'[21] Franz Bopp illustrates this point, having launched his career with his 1816 study of verbal conjugation systems (comparing Sanskrit, Greek, Latin, Persian, and Germanic), and culminating his efforts in a six-volume *Vergleichende Grammatik* (*Comparative Grammar*) (1833–49). Stripping language to grammatical forms, Bopp sought to chart linguistic change over time, with the eventual hope of reconstituting the Indo-European proto-language.[22] A prominent pedagogue, Bopp formalised the 'comparative method' that became fundamental for generations of philologists and linguists (Fig. *i*).

[18] Olender, *Les langues du paradis*, 24–33.
[19] Kaiwar, 'The Aryan Model of History and the Oriental Renaissance', 23; Kaiwar is borrowing a term of controversial coinage from Martin Bernal; see above, note 9.
[20] Barthélemy-Saint-Hilaire, 'Notice sur les travaux de M. Eugène Burnouf', xiii.
[21] Ahmed, *Archaeology of Babel*, 27; or, as Foucault put it, 'le langage devenu objet' (*Les mots et les choses*, 307).
[22] Turner, *Philology*, 130–1.



Singular.

Masculinum.

	Sanskrit	Zend	Griech.	Latein.	Goth.	Lith.	Altslaw.
N.	*sa, sak, só*	*hô*	*ὁ*	*is-TE*	*sa*	*tas*	*tъ*
Ac.	*tam*	*tĕm*	*τόν*	*is-TUM*	*thana*	*tan*	*tъ*
I.	*têna*	(*tâ*)	.....	.....	.....	*tû, tûmi*	**tjem*
D.	*tasmâi*[1])	(*tahmâi*)[1])	*τῷ*	*is-TĪ*[2])	*themma*[3])	*tam*[4])	*tomû*[5])
Ab.	*tasmât*	(*tahmâṭ*)	.....	*is-TO(D)*	.....	.....	.....
G.	*tasya*	(*tahê*)[6])	*τοῖο*[7])	*is-TĪUS*[7])	*this*	*to*	*togo*[8])
L.	*tasmin*[9])	(*tahmi*)[9])	.....	*tamen?*[10])	.....	*tumè*[11])	*tom*[12])

Neutrum.

N. Ac.	*tat*[13])	*taṭ*[13])	*τό*[13])	*isTUD*[13])	*thata*[14])	*tai*[15])	*to*[16])

Übrigens wie das Masculinum.

Figure *i*: Franz Bopp's comparative table of declensions, from his *Vergleichende Grammatik des Sanskrit, Zend, Griechischen, Lateinischen, Litthauischen, Gothischen und Deutschen* (1835), p. 496

Comparative philology, linguistics, and Indo-European studies were protean and overlapping terrains throughout much of the nineteenth century.[23] Despite Ahmed's clear-cut formulation, the study of language-as-medium remained messily attached to the study of language-as-meaning, such that the comparison of words overflowed into the comparison of cultures. Scholars sought to appropriate comparative philology for application to domains beyond the linguistic – either by (metaphorically) applying philological methods of objectification and comparison to domains like religion; or by (metonymically) adopting supposed linguistic genealogies as starting points for broader studies of cultural or ethnic histories, as Jones had already begun to do. From there, it did not take long for the comparison of cultures to feed into equally protean constructions of 'race'. While some anthropologists sought to determine the extent to which there were essential physical or physiological characteristics of an Indo-European 'race', 'race' was often understood to extend to notions of mind, spirit, and 'soul'.[24] Through the accumulation of such slippages, therefore, the construction of an Indo-European

[23] Morpurgo Davies, 'Saussure and Indo-European linguistics', 9.
[24] A number of nineteenth-century French conceptualisations of 'race' are outlined in Pasler, 'Theorizing Race in Nineteenth-Century France', 459–64.

linguistic family rapidly overflowed into the construction of an Indo-European – also called 'aryan' – 'race'. The significance of this shift 'cannot be stressed enough', writes Arvidsson.[25] Ahmed has argued that the 'modern category of race', itself, 'began with the idea of protolanguages and the supposed derivation from them of language families, religions, nations, and laws'.[26]

Even as increasingly sophisticated linguistic analysis toward the turn of the twentieth century belied any Indo-European cultural or 'racial' essentialism, comparativist scholarship of mythology and religion fuelled constructions of Indo-Europeanism with scientific authority. Historian of linguistics Anna Morpurgo Davies used the helpful terms 'linguistic core' and 'linguistic periphery' to refer to how various methods and findings, narrowly rooted in linguistic study, were appropriated for broader use beyond the study of language.[27] Philologists, comparative mythologists, and public intellectuals – including Friedrich Max Müller and Ernest Renan, the two 'great popularisers of the aryan theory'[28] – propelled Indo-European fantasies from the linguistic laboratory into mainstream consciousness. These two and many others constructed a discourse of 'Indo-Europeanism' in concerted opposition to 'semitism'; this fundamental binary opposition structured many further binaries. I adapt the following table from versions by Bruce Lincoln and Arvidsson:[29]

Aryan	**Semite**
Myth	Ritual
Poetry	Law
Creativity	Fidelity
Imagination	Sterile repetition
Science	Superstition
Objectivity	Subjectivity
Progress/dynamism	Tradition/stasis
Avatars	Prophets

These binaries unsurprisingly align the 'aryan' with a gamut of favoured European intellectual and bourgeois values – including the very idea of an objective scientific discourse which legitimates its construction.

[25] Arvidsson, *Aryan Idols*, 61.
[26] Ahmed, *Archaeology of Babel*, 158.
[27] Morpurgo Davies, *Nineteenth-Century Linguistics*, 290.
[28] Poliakov, *Le Mythe aryen*, 267; 'les deux grands vulgarisateurs de la théorie aryenne'.
[29] Lincoln, 'From Bergaigne to Meuli', 16; see also, *Theorizing Myth*, ch. 3; and Arvidsson, *Aryan Idols*, 96.

Attuned to these oppositions at the outset, one is primed to perceive their echoes in *fin-de-siècle* musical and musicological discourse. For example, in 1898, Jean Parisot (of the Solesmes monastery) echoed the archetypical dichotomy in metaphors comparing essential linguistic and musical 'families'. As he wrote in the *Tribune de Saint-Gervais*, 'music is, in effect, a language':

> Whereas the aryan languages are shown to be rich in vowels, flexible, sonorous, to the extent that the range of spoken sounds has, as one author has said, the regularity of a musical scale, as clear in the sound of its syllables as they are precise in the meanings of their roots and inflexions – semitic languages, for which everything rests upon the articulation of the consonant, remain deprived of the delicate nuances of vowels…

The 'rich', 'flexible' sounds of the 'aryan languages' echo ideas of 'creativity' and 'dynamism', their 'clear' and 'precise' sounds those of 'objectivity' (and how familiar that word – 'clair' – from French descriptions of their art); this, in contrast to the indelicate, unnuanced 'semitic languages'. Then, in a neat rhetorical trick, Parisot, having likened language to music through metaphor, next assimilated language and music yet further, through a metonymic relation:

> In these conditions, music, originally the sung word, must, for the semites, naturally differ from the music of the aryan races.[30]

Two years later, Amédée Gastoué (of the Schola Cantorum) attributed a similar constellation of qualities to 'the great aryan family, from which we descend': 'the infinite delicacy of its productions in sculpture, architecture, painting, literature, music, despite ethnic differences of various causes, forms a very close bond among modern nations.'[31] The aryan/semite opposition was sufficiently widespread to be evoked familiarly, as Henri Quittard did in 1906, writing that 'European music, oriental music, they are two different organisms, often opposed, at least as distant from one another as the aryan languages are from the semitic languages.'[32]

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[30] Parisot, 'Musique orientale', 57; 'Tandis que les langues âryennes se montrent riches en voyelles, flexibles, sonores, à ce point que l'échelle des sons parlés a, comme l'a dit un auteur, la régularité d'une gamme musicale, aussi claires dans le son des syllabes que précises dans les significations des racines et de leurs flexions; – les langues sémitiques, rapportant tout à l'articulation de la consonne, restent dépourvues des nuances délicates des voyelles.… Dans ces conditions, la musique, originairement la parole chantée, doit, chez les Sémites, naturellement différer de la musique des races âryennes.'

[31] Gastoué, 'L'Art Grégorien – Les origines primaires', 9; 'la grande famille arienne, de laquelle nous sommes issus… L'infinie délicatesse de ses productions en sculpture, en architecture, en peinture, en littérature, en musique, malgré des différences ethniques aux causes très diverses, forme un lien très étroit entre les nations modernes'.

[32] Quittard, 'L'orientalisme musical. Saint-Saëns orientaliste', 108; 'Musique européenne, musique orientale, ce sont deux organismes distincts, souvent opposés, aussi loin l'un de l'autre en tout cas que les langues aryennes le sont des langues sémitiques.'

Such tropes will recur in future chapters, as musicologists attempted to pinpoint the nature of the relationship between language, music, and 'race', as well as the causal vectors that might link the three. Different scholars treated these relationships variably: Fétis was convinced that 'race' determined linguistic and cultural behaviours; Gevaert, while he granted a degree of 'racial' essentialism, was more sceptical of its deterministic role as regards music; and others rejected 'racial' essentialism altogether, yet clung to notions of Indo-European linguistic essentialism which might leave the door open for 'Indo-European' musical qualities.[33] Consequently, the relationships between forms of Indo-Europeanism and of racism in this period are not necessarily as straightforward nor consistent as we may expect, particularly given our perspective following the genocide couched in discourses of aryanism later in the twentieth century. Considering Renan's complex and contradictory relationship with notions of 'race', Priest prefers a cautious approach to drawing equivalences and causal links, suggesting that Renan's 'judgemental and purportedly scientific discussions of differences between Aryans and Semites contributed to a broader cultural context, which lent traction to dangerous currents like anti-Semitism and colonialism.'[34] I interpret Priest's advice not as apologism, but as a more radical observation – that damaging constructions of cultural essentialism and difference, not limited to constructions of 'race', persist even once the term of 'race' is rejected, as we shall later see. It is thus important to bear in mind the fluidity of critical concepts over the span of scholarship covered, and to pay hermeneutical attention to how individuals defined their objects of study in context. There has been no shortage of Jewish Indo-Europeanists, including Abel Bergaigne, Michel Bréal*, and Sylvain Lévi, demonstrating that the relationship between interest in Indo-European cultures, and even forms of Indo-Europeanist essentialism, often extended beyond 'common' antisemitism (although, as Bruce Lincoln has shown, Jewish Indo-Europeanists often resisted simplistic aryan/semite constructions through their scholarship).[35] Furthermore, even though 'aryans' were defined in opposition to 'semites', both groups were in various ways subsumed under

[33] The difference of opinion between Fétis and Gevaert is the subject of Chapter 1, below.
[34] Priest, 'Ernest Renan's Race Problem', 324.
[35] Lincoln, 'From Bergaigne to Meuli', 17–18. An interesting musical example of such resistance might be Salomon Reinach's take on the origins of music published in 1880, in which he inverts aryanist claims of priority by arguing that 'La musique, *en tant qu'art*, n'a pas été connue des Aryens, qui n'eut aucun terme musical commun: ils l'ont apprise des Sémites, qui en ont toujours gardé l'instinct' [Reinach's emphasis] (*Manuel de philologie classique*, 165n1).

constructions of 'civilised' and 'whiteness'.[36] On the other hand, languages, cultures, and peoples not recognised as 'white' were relegated to a subordinate rung of these interpolated racist hierarchies, and more frequently 'studied' within the disciplinary purview of 'anthropology' or 'ethnology' rather than 'philology'.[37]

Approaches to reconciling Indo-Europeanism with constructions of 'Judeo-Christianity' have also been varied, with some (notably Renan) configuring Christianity as the sublime coalescence of the 'aryan' and 'semitic', and others overwriting biblical history, rejecting the presence of any trace of the 'semitic' in the Christian tradition. Thus, Renan and Michelet could each appropriate Indo-Europeanism in radically opposing ways to create alternative histories of western spirituality in the former's bestseller, *La Vie de Jésus* (1863), and the latter's rejoinder, *La Bible de l'humanité* (1864).[38] Or, as Richard Wagner had written to Franz Liszt nearly a decade earlier: 'Modern research has succeeded in showing that pure and unalloyed Christianity was nothing but a branch of that venerable Buddhism which, after Alexander's Indian expedition, spread to the shores of the Mediterranean.'[39] The problem of reconciling aryanist and biblical historical models also infiltrated early scholarship on plainchant – for example, when scholars such as André Mocquereau, Amédée Gastoué, Émile Burnouf, and Pierre Aubry engaged with prevailing intellectual currents in philology in efforts to trace the origins of Gregorian chant, negotiating the use of a scientific methodology that complicated, even threatened, Christian narratives of human history.[40]

[36] Gobineau propagated the categorisation of 'aryans' and 'semites' beneath the rubric of 'race blanche' – itself with 'jaune' and 'noire' – a scheme adopted by Fétis (see Christensen, *Stories of Tonality*, 204–7), and later Henry Woollett.*

[37] Roland Inden posits that the distinction between 'orientalism' (i.e., philology) and 'anthropology' maps onto constructions of 'civilised' and 'barbaric' as objects of study ('Orientalist Constructions of India', 407–8).

[38] See also, in this vein, the popular but less 'scholarly' works of Louis Jacolliot, such as *La Bible dans l'Inde: vie de Iezeus Christna* (1869), which attempts to link 'Christ', 'Zeus', and 'Krishna' more than etymologically. Another example, similar to the Jacolliot but from the musical realm, occurs in d'Indy's *Fervaal* (1895), when ancient Greek, Celtic, and Christian divinities are linked in the phrase, 'Tzeus est mort, Esus dort, Yésus veille, Yésus vient' – a single phrase which, as Steven Huebner writes, 'summarizes a great succession of three faiths' (*French Opera at the Fin-de-Siècle*, 327).

[39] Quoted in Olender, *Les Langues du Paradis*, 136–7.

[40] Different scholars circumvented this conundrum differently. Mocquereau, for example, invoked comparative philology with the relatively narrow aim of determining the nature of Latin prosody at the time of Gregory; while Gastoué, following William Jones and others, equated the 'aryans' with the descendants of the Biblical Japhet, alongside the 'semites' descended from Shem, and the 'hamites' from Ham (see 'L'Art Grégorien', 9). Burnouf, himself atheist, prized christianism as itself a cultural product of the 'aryans', with its origins in the Vedas (Olender, 'Between Sciences of Origins and Religions of the Future', 220).

Although increasing scholarly specialisation since the end of the nineteenth century led to the gradual (ongoing[41]) intellectual dismantling of romanticist Indo-Europeanism, notions of a classical Indo-European heritage (often assimilated to India, Persia, and Greece) reverberated in the European imaginary long thereafter. This discontinuity is already captured by Salomon Reinach* in his 1892 polemic, *L'Origine des Aryens: Histoire d'une controverse*, a lucid critique of language comparison as a proxy for human relations. Reinach's reasoning did not extinguish Indo-Europeanism – whether as a powerful identitarian ideology which continued to consolidate nationalist, imperialist, or racist agendas; a seductive fantasy embedded into the fabric of cultural production; a technical term to designate certain family resemblances among languages and dialects; or anything in between. All the while, notions of Indo-European identity reignited antisemitism (at best, semitic essentialism) with new, scientific kindling. Édouard Drumont, whose multifarious hatred of Jews was not exclusively based on scientific Indo-Europeanism, opted to open his bestselling tract, *La France juive* (1886), with an extended discussion of the 'aryan'; such polemics, in turn, lent traction to antisemitic extremism in reactionary circles through the Dreyfus Affair and beyond.[42] Indo-Europeanism is similarly a historical component of the Islamophobia which remains entrenched today (though the connection to the 'aryan'/'semite' opposition is rarely drawn in contemporary contexts), with encounters between 'Indo-European' and 'Muslim' proxies a recurring operatic trope.[43] Clearly, therefore, Indo-Europeanism took many forms, particularly as the focus drifted away from the 'core' of linguistic resemblances and toward 'peripheral' cultural and 'racial' realms.

Because of its hegemony and its compatibility with political views across the spectrum, Indo-Europeanism transcends divides which have often been emphasised in French musical historiography. For example, in various forms, notions of Indo-Europeanism were equally at home in the Schola Cantorum and in the Conservatoire, further diluting the idea that these institutions were pitted in diametric ideological opposition. Moreover, Indo-Europeanism could galvanise both Wagnerist and anti-Wagnerist musical philosophies.[44] For Vincent

[41] The persistence of, and resistance to, Indo-Europeanism in scholarship continues today; see Jean-Paul Demoule, *Mais où sont passés les Indo-Européens?*.
[42] Drumont, *La France juive*, 5–18. Drumont also cited clericalist and anticapitalist rationales for his anti-Jewish vehemance; but the construction of aryanism is given particular prominence early in his text.
[43] Examples discussed later in the thesis include Bourgault-Ducoudray's *Thamara* (Chapter 5) and Roussel's *Padmâvatî* (Chapter 7).
[44] Wagner's own antisemitism was tethered to an aryanist model of history informed by his reading of German philologists, mythologists, and philosophers (especially Schopenhauer). On Wagner's antisemitic vision of an 'aryan Christianity' see, e.g., Rose, *Wagner*, ch. 6.

d'Indy*, Wagner offered a model for musical aryanism that could be appropriated wholesale, in both motivic construction (in works like *Fervaal* and *La Légende de Saint-Christophe*), and narratological arc (where aryanist and christianist teleologies were assimilated to each other, reframed along French and Catholic contexts).[45] In contrast, for composer and musicologist Louis-Albert Bourgault-Ducoudray, the prospect of harnessing 'Indo-European' musical principles was mediated by a comparativist approach to music history, and manifested in his conception of 'modality' that offered an alternative to what he called the 'abuse of chromatic style' and the threat of Wagnerian (and Germanic) musical dominance.[46]

The genocidal project to which Indo-Europeanism and aryanism gave traction in the twentieth century has cast an imposing shadow over the prehistory of these ideologies. While I resist drawing any facile teleological links between the history surveyed in my thesis and later aryanist extremism, I do seek to stimulate more honest scrutiny of the centrality of the Indo-European hypothesis to musicological and music histories (beyond the Third Reich[47]) – an incremental corrective to previous disciplinary historiography which will lead, I hope, to fuller reckonings in the long run.

Locating Indo-Europeanism between 'other' and 'past'.

Indo-Europeanism's broad scope, protean forms, and facile assimilation to antisemitism are among several factors which may have obscured its particular prevalence from previous musicological study. My own route to studying the imprint of philology and Indo-Europeanism in French music began from a rather different angle: my dissatisfaction with scholarly discussions of 'musical exoticism'. Indeed, it is in the context of 'exoticism' that much of the musical repertoire central to this thesis – from Bourgault-Ducoudray's *Thamara*, through Roussel's *Padmâvatî*, to Messiaen's *Turangalîla-Symphonie* – has previously been treated by musicologists. It was in regard to Messiaen's music, in particular, that the hermeneutical apparatus of 'exoticism' appeared to me deficient: Messiaen's famed borrowings from thirteenth-century Indian rhythms gave the lie to existing musicological

[45] On d'Indy's engagements with Wagner, see Huebner, *French Opera at the Fin-de-Siècle*, ch. 2.
[46] *Revue et gazette musicale*, 24/ii/1878, 58.
[47] The impact of aryanism on music and musicology in Nazi Germany has been richly documented in anglophone scholarship; see, e.g., Levi, *Music in the Third Reich*, esp. ch. 9; Potter, *Most German of the Arts*; and Kater, *The Twisted Muse*. Broadly speaking, musical 'aryanism' in Nazi contexts was more often defined by the 'racial' identity, and cultural politics, of individual musicians and composers – in distinction to more philologically mediated conceptions surveyed in this thesis.

frameworks for broaching the aesthetic, and ethical, questions raised by 'exoticism' and 'appropriation'. For some scholars, Messiaen's practice exemplified intercultural composition that was somehow more thorough, more profound, and thereby more legitimate than 'exoticist' pastiche or stereotype – Jean-Pierre Bartoli writes that 'in the opinion of many commentators, Messiaen's 'oriental' inspiration relegates previous exoticisms to the realm of "cheap tricks"'; Jean-Marc Moura describes Messiaen's orientalist technique as 'structural' rather than 'ornamental'; Messiaen's case would seem to illustrate what Ralph Locke described, in contrast to 'overt exoticism', as 'transcultural composing' – to cite only a few examples.[48] Yet such conclusions ring hollow. For one, many scholars had staked similar claims on behalf of Bourgault-Ducoudray[49] and Roussel[50] – which suggested to me that the goalposts of orientalist sophistication were endlessly receding, and had little to do with any measurable features of these composers' works.[51] Yet characterisations of Messiaen's assiduous study of Indian music seemed especially clouded, not least since Messiaen could access recordings, even performances, of Indian music in Paris – yet he instead relied upon the work of an author (Joanny Grosset) who by all appearances never travelled to India or heard Indian music. And while Messiaen's engagement with Indian music was judged somehow more 'profound' because he did not 'descend' to such measures as sonic stereotype, commentators seem unconcerned about reconciling this supposed progressivism with Messiaen's unabashed exoticism and primitivism in evocations of South America and the Pacific Islands in works like *Harawi* (1945), or the 'Île de Feu' piano études (1949–50). In other words, at times, Messiaen appeared to shun stereotype and project erudition, as in his compositional appropriations of Indian music; while elsewhere, he betrayed a predilection for cultural difference, estrangement, and 'cheap tricks' which suggested less of a progressive rupture with previous generations than musicologists tend to assume. Something about Messiaen's Indianist borrowings frustrated notions of 'musical exoticism' as generally theorised – a problem which called not only for a rethinking of Messiaen's Indian rhythms, but perhaps even of 'exoticism' itself.

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[48] Bartoli, 'Olivier Messiaen', in Pouillon, ed., *Dictionnaire des orientalistes de langue française*, 679; Moura, *Exotisme et lettres francophones*, 129–31; Locke, *Musical Exoticism*, 228.
[49] See, e.g., Damien Top's assertion that *Thamara* 'a renouvelé le genre de l'opéra orientalisant en privilégiant la recherche de l'authenticité sur le spectaculaire et l'anecdotique' (*Albert Roussel*, 86).
[50] See, e.g., Richard Langham Smith's opinion that *Padmâvatî* 'has few precursors which draw impetus from oriental music at so many levels', and 'pay[s] more than lip-service to the sound world of oriental instrumental groupings' ('*Padmâvatî*', *New Grove Opera*).
[51] Matthew Head has made a similar observation, writing that exoticism 'tends to pride itself on its technology', that is, new techniques of evocation; yet just because the 'means' change, the 'message' or fundamental subject-orientation does not ('Musicology on Safari', 226).

If ‘exoticism’ has a long history as a critical concept, the study of exoticism as a subfield of historical musicology was animated by the advent of the ‘new musicology’ of the 1990s, addressing the imperative to open the discipline to horizons of cultural theory – including gender and sexuality studies and feminist criticism, race studies and postcolonial theory, and disability studies – which had for decades remained the purview of literature and film studies. ‘New’ musicologists rightly saw in the operatic history of nineteenth-century France, for example, a repertoire ripe for postcolonial critique.[52] Such studies unanimously cite Said’s *Orientalism*; however, while they emphasise the connection Said drew between representation and power, representation itself has been narrowly conceived as the depiction or evocation of the ‘exotic other’ – whether visually on the operatic stage, sonically in instrumental music, or both. A prevalent strategy in musicological discussions of ‘exoticism’ has therefore been to identify formal aesthetic or stylistic features of a musical work which enact such representation, whether through a topic, a stereotype, or less conventionally, through some attempt at sonic verisimilitude.[53]

The ramifications of this narrow conception of ‘representation’ have echoed throughout reflections on musical exoticism, resulting in a merely partial engagement with Said’s critique. This missed connection may be indexed by the conflation of the terms ‘exoticism’ and ‘orientalism’ in much of the musicological literature, which has diluted both terms as critical concepts. For Matthew Head, it is a principally geographical matter: ‘By Orientalism I mean exoticism whose object is the music of (among other territories) the present-day Middle East, North Africa, China, the Indian Subcontinent and Japan)’.[54] Ralph Locke’s *Grove* entry takes a similar approach.[55] In his monograph on the subject, Locke considers it a question of

[52] See, e.g., Locke, ‘Constructing the Oriental “Other”’; McClary, *Georges Bizet, Carmen*, esp. ch. 3 and pp. 51–8; Parakilas, ‘The Soldier and the Exotic’; Bellman, ed., *The Exotic in Western Music*.
[53] For attempts to identify and enumerate exoticist topics and stereotypes, see, e.g., Locke, *Musical Exoticism*, 51–4; Dickensheets, ‘The Topical Vocabulary of the Nineteenth Century’, 130–1. Some scholars have evaded the identification of catchall exoticist aesthetic qualities by thinking in terms of compositional ‘strategies’ by which composers fuse musical cultures: e.g., Everett, ‘Intercultural Synthesis in Postwar Western Art Music’, 16. However, Everett’s criteria for sorting case studies into types still rests upon her aesthetic evaluation of the extent to which works resemble, or do not, source musics. Ralph Locke has rightly identified the emphasis on aesthetic markers as a problem; however, his proposed ‘All the Music in Full Context’ paradigm, seeking to account for ‘exoticism without exotic style’ in the music (*Musical Exoticism*, 59–64) is not an adequate solution, as this model, too, relies upon aesthetic judgements, and also relies upon the presence of a programmatic ‘exoticism’ even in the ‘absence’ of ‘exotic style’.
[54] Head, *Orientalism, Masquerade and Mozart’s Turkish Music*, 11n14.
[55] Locke, ‘Orientalism’, *Grove Music Online*. According to Locke, ‘orientalism’ is a special case – ‘the dialects’ – of exoticism concerning the ‘Islamic Middle East...or East and South Asia...or all of these together’.

tone: orientalism is a 'sharply disapproving *substitute* for a word – "exotic" – that had so long been used in a spirit of delighted endorsement'.[56] Often the terms are not defined at all, even when used side by side, further muddying the waters.[57] Similar lexical fluidity maps onto 'orientalisme' and 'exotisme' in francophone discourse.[58] The problems with this ambiguous usage are manifold. For one, it undermines the individual genealogies of each term. 'Exoticism' has a long semantic history, particularly in francophone contexts, as an aesthetic quality – describing the often seductive appreciation of cultural difference and strangeness – a history which has been traced by Tzvetan Todorov and Jean-Marc Moura.[59] This has relatively little to do with the term 'orientalism', which (prior to Said's critique) was dispassionately used to refer to the research carried out by 'orientalists', mainly scholars of middle eastern and Asian languages. The term was significantly thickened when Said, following Gramsci and Foucault, deconstructed 'orientalism' as, more than a discipline, a hegemonic discourse complicit in the exercise of imperial power. Academic orientalism and comparative philology form a central corpus upon which Said's criticism is founded, including sections on Renan and what he called the 'philological laboratory'.[60] The hegemonic model chosen by Said is important to his demonstration of the pervasiveness of orientalist discourse throughout culture. In this framework, Said can link 'traditional exoticism',[61] or the 'exotic sublimity' of Romantic 'oriental' tableaux in the 'high art' realm,[62] to orientalist scholarship, governmental data collection, or news media: all are elements of an underlying, totalising discourse, consolidated in institutions of artistic production and consumption, of education, and of empire. In the context of *Orientalism*, exoticism is a component aesthetic, present in some of orientalism's manifestations and not others. In other words, following Said, 'exoticism' is a subordinate dimension of broader orientalist discourse – and musicologists who portray 'orientalism' as a subset of 'exoticism', even while citing Said, have not actualised his deconstruction.

The breezy conflation of 'exoticism' and 'orientalism' has had the effect of obscuring from critical attention forms of 'orientalism' that occur prior to representations on the musical stage – specifically, those emerging from what we might call the 'musicological laboratory' – as a

[56] Locke, *Musical Exoticism*, 38.
[57] See, e.g., Born and Hesmondhalgh, 'Introduction', 2; and Bloechl and Lowe, 'Introduction', 32.
[58] See, e.g., Defrance, 'Exotisme et esthétique musicale en France'.
[59] Todorov, *Nous et les autres*, ch. 4; Moura, *La Littérature des lointains*, 23–4; 469.
[60] Said, *Orientalism*, ch. 2, § 2.
[61] Ibid., 26.
[62] Ibid., 118.

discourse of musicological knowledge production. Sindhumathi Revuluri drew attention to this oversight in her contribution to a roundtable assessing Said's legacy in musicology: 'Put simply: we think we know what *Orientalism* is about, but in reality we often miss the full range of its nuanced critique. Reclaiming the potential of Said's ideas involves returning to him not as an analyst of style or a lover of western classical music, but as a radical historian and a critic of the very academy of which he was a part.'[63] Musicologists engaging with 'orientalism', Revuluri argues, have habitually engaged with the former realm – critiques of the exoticised, eroticised protagonists of countless operas, for instance – yet have not reckoned with the 'orientalism' of professional, academic orientalists of universities and museums.[64] Revuluri identifies the musicological scholarship of nineteenth-century France as a trove for such a study, arguing that we must read such scholarship 'as part of a larger practice of exoticism (as a representational ideology), rather than as its parallel or its inverse'.[65] While I would quibble that Revuluri's choice to label this practice 'exoticism' rather than 'orientalism' risks perpetuating the distortion of Said's terminology, I agree with the spirit of her call to arms, and use it as a launchpad. Within French studies, too, scholars have identified the rich potential of revisiting French intellectual history with Said as a guide. Charles Forsdick and Jennifer Yee point out that much of Said's theory – and by extension, the foundations of colonial discourse analysis and postcolonial theory – is itself rooted in his readings of nineteenth-century French scholarly texts, and argue for postcolonial perspectives to be brought to bear on the study of nineteenth-century France more broadly.[66] As Said noted, orientalist scholarship assumed an especially authoritative status in France (as compared to Britain or Germany), where it was consolidated in densely networked Parisian institutions backed by the French state, 'whose purpose was to make knowledge depend on officially certified sciences, scientific bodies, official canons'.[67]

It would be inaccurate to say that musicologists have ignored the history of orientalist musical scholarship altogether. However, for a long time, such meta-musicological study was more forthcoming from those identifying as ethnomusicologists rather than historical

[63] Revuluri, in Cohen et al., 'Round Table: Edward Said and Musicology Today', 205.
[64] Said's own choice to explore musical orientalism through an opera perhaps contributed to this entrenchment. While one might take aim at Said's reading of the narrative of *Aida*, I find that his discussion of the exchanges between Egyptological archaeology and the opera's mise-en-scène via Auguste Mariette demonstrates the productivity of studying the 'interchange' between orientalist 'exoticism' and 'scholarship' together. See Said, 'The Empire at Work: Verdi's *Aida*', in *Culture and Imperialism*, 111–32.
[65] Revuluri, in Cohen et al., 'Round Table: Edward Said and Musicology Today', 208.
[66] Forsdick and Yee, 'Towards a Postcolonial Nineteenth Century', 168.
[67] Said, *The World, the Text, and the Critic*, 272–3.

musicologists.[68] Indian music, canonical to ethnomusicology for several early generations, was the subject of a number of reflexive studies tracing the growth and nature of the ethnomusicological discipline over time.[69] Only more recently have historical musicologists begun to examine the same sources – less in order to survey knowledge of foreign musical cultures as such, but rather to paint fuller pictures of musical and musicological cultures in Europe. In this light, studies by Alexander Rehding, Bennett Zon, Ruth Rosenberg, and Jann Pasler offer critical insight into what German, British, and French musicians heard, and how they constructed knowledge; in doing so, these musicologists follow the lead of Schwab (now with the benefit of Said's critical edge), studying 'secondaries' like Carl Stumpf, Charles Samuel Myers, Gaston Knosp, and others who, through orientalist scholarship, 'made possible' works audiences came to know and love.[70]

This final phase – what Said referred to as the 'interchange' between realms of orientalist scholarship and creative practice[71] – lies at the heart of this thesis. If the case of Messiaen had seemed to represent a turning point away from frameworks of 'exoticism' for commentators like Bartoli and Moura, I would posit that this disjuncture is more aesthetic than ideological, and greater insights are gleaned from going, as David Irving puts it, '*beneath* exoticism' – that is, by examining contexts and conditions in place at a stage prior to aestheticisation in musical composition.[72] To this end, I began pursuing layers of orientalist scholarship and representation prior to Messiaen's own borrowings, examining the French sources for Indian music available to musicians in the late nineteenth and early twentieth centuries, beginning with Messiaen's own source – Joanny Grosset's chapter on Indian music in Albert Lavignac's *Encyclopédie de la musique et dictionnaire du conservatoire*, published in 1913 – and working backwards.[73] Before long, two preliminary impressions emerged: first, that most francophone orientalist commentary on Indian music was principally concerned with the

[68] E.g., Bohlman, 'The European Discovery of Music in the Islamic World and the "Non-Western" in 19th-Century Music History' (1987)'.
[69] E.g., Powers, 'Indian Music and the English Language' (1965); Bor, 'The Rise of Ethnomusicology' (1988); and Farrell, *Indian Music and the West* (1997), introduction and chs. 1–2.
[70] This formulation is again Said's (*The World, the Text, and the Critic*, 257). For such musicological studies, see e.g., Rehding, 'Wax Cylinder Revolutions' (2005) and 'Music-Historical Egyptomania, 1650-1950' (2014); Zon, *Representing Non-Western Music in Nineteenth-Century Britain* (2007); Rosenberg, *Music, Travel, and Imperial Encounter in 19th-Century France* (2014); Pasler, 'The Music Criticism of Gaston Knosp' (2012), 'Sonic Anthropology in 1900' (2014), and 'The Racial and Colonial Implications of Music Ethnographies in the French Empire, 1860s–1930s' (2015).
[71] Said, *Orientalism*, 3.
[72] Irving, 'Accidental Occident'. Irving is riffing on the title of Timothy Taylor's book, *Beyond Exoticism*.
[73] Some of the available sources are collated in Pasler, 'India and Its Music in the French Imagination before 1913'.

music of an ancient, and 'Hindu', India; and second, that these main sources were written either by philologists (such as Grosset), or by musicologists who read the work of philologists (such as Fétis or Maurice Emmanuel). Furthermore, it was soon clear that these observations were related: studies of Indian music were often mediated by a philological epistemological paradigm, distinguishing them from French studies of many 'other' musical cultures, and also from some British studies of Indian music. More precisely, Indian music in early French musicology seemed tethered to the conceptual space India had come to occupy for nineteenth-century continental philologists – as an ancient, potentially ancestral, source of French cultural, and even 'racial', heritage, via classical Greece and Rome.

This philological mediation had several implications for the construction of Indian music as a scholarly and musicological object. For one, due to philology's investment in Indo-Europeanism, Indian music was often portrayed less as 'exotic other' and more as 'musical past'. The stakes of the musical past were keenly felt as questions of nationhood and identity were increasingly contested over the nineteenth century: critics and musicians alike sought to pinpoint a 'French' musical tradition, attempting to identify what Katharine Ellis has called 'sources of Frenchness'.[74] In particular, through the comparative study and performance of historical music, they sought to derive origins of 'modern' French musical style. Later in the century, the desire to fix origins of French musical identity extended to classical antiquity, reflected not only in the rise of Latinising and Hellenising language in music criticism and historiography, as Ellis demonstrates (one might add 'aryanising' to that list),[75] but also in the emerging musicological inquiry into ever-earlier musical cultures. It is in this context that philologists situated the study of Indian music – as an ancient branch of the 'Indo-European' musical 'family', with links to France's putative Hellenic and Latin ancestors via Greek music and plainchant.

Another implication of philological mediation concerns the privileged medium by which a musical culture is 'apprehended' and, in turn, represented.[76] Sheldon Pollock called philology 'the discipline of making sense of texts' and even 'the theory of textuality' itself; Said

[74] Ellis, *Interpreting the Musical Past*, 157.
[75] Ibid., 214ff.
[76] Ruth Rosenberg introduces the idea of the 'musical apprehension' as 'a framework for charting the patterns that emerge from a range of representational and rhetorical strategies at work in French travelers' writings about music. The term describes not only 'manners of perceiving and making meaningful', but also connotes 'processes of acquisition, domination, contestation, and assimilation,' while also resonating with notions of 'anxiety and ambivalence' in the face of the unfamiliar (*Music, Travel, and Imperial Encounter*, 11).

referred to philology's 'textual attitude'.[77] Texts and textuality afford the means to represent, abstract, and objectify language upon which comparative philological scholarship had been based since Bopp. Etymological tables comparing roots, conjugations, and declensions isolated linguistic particles from semantic contexts in order to illustrate one possible narrative of language development. Philologists of music endeavoured to isolate musical parameters – most often pitch classes ('modes') or rhythmic patterns – as a sort of equivalent to linguistic morphology which could be compared across musical traditions. However, while the atomisation of a musical culture through tables of pitches, modes, and metres – whether mediated by procrustean 'western staff notation', by another notation culture (such as various Indian traditions discussed in Chapter 4), or by ostensibly 'neutral' transcription systems developed in the acoustic laboratory – may have facilitated application of the comparative method, it also provided an image of music rarefied in its abstraction, a parametrised presentation divorced from sound or performance. In the case of musical cultures conceived as 'Indo-European', the preference for ancient texts (in favour of an ethnography of living musicians, for example), was linked to philologists' desires to recover and hone essential features of a heritage viewed as kindred. However, viewed from another perspective, philological abstraction afforded French musicologists, and by extension musicians, something new and decisive: fresh musical materials, framed as musical patrimony, with which to enhance the French compositional lexicon. To state this does not amount to an ethical defence of philology (on the contrary), but historical observation: appropriating philology's comparative method, music scholars sought to identify essential structural properties of Indo-Europeanism in music – a sort of musical 'morphology', analogous to linguistic stems or verbal roots – whether in the hypothesis of 'aryan modality' propounded by Bourgault-Ducoudray (discussed in Chapter 2), or the theory of 'Indo-European rhythm' proposed by Antoine Meillet (discussed in Chapter 3). The attention that this philologically mediated musicology placed on these structures and principles, rather than on music as sounded or performed in real-time, affected in turn how archetypically ancient Indo-European (most often Indian and Greek) musics were taken up by composers who consumed this musicology. In place of quotation or imitation, the premise of Indo-European patrimony led many composers to seek to harness, and embed into their lexicon, musical structures and forms deemed essentially 'Indo-European', as examined in Part II.

[77] Pollock, 'Future Philology?', 934; Said, *Orientalism*, 92.

Because of this thorough formal abstraction, locating Indo-Europeanism in French music can be elusive, particularly if one's index is 'exoticism'. Prior to its infiltration of musical composition, Indo-Europeanism is the joint construction of philologists, musicologists, and other scholars over generations – as I have suggested above, and shall demonstrate in Part I. It cannot necessarily be identified in a musical score as another 'topic' or stereotype connoting a cultural 'other', or by any single aesthetic means – rather, its representation occurs at a prior stage, in the 'musicological laboratory'. This realisation, in turn, exposes the limits of a hermeneutics of 'exoticism' based on aesthetic analysis: what appear to be representations of Indian music might have less to do with an 'aesthetics of diversity' à la Victor Segalen[78] than they do with nationalist and ethnicist histories of nineteenth century intellectual history; and conversely, properties attributed to ancient 'Indo-European' musics channelled into French composition may not signal their presence, due to concerted processes of philological abstraction and assimilation.[79]

If studies of 'exoticism' – portrayed as a bygone trend commonly historicised in connection with colonialism – were a prime outcome of historical musicology's first reckoning with 'postcolonial studies', then I offer my readings and efforts to pinpoint resonances of Indo-Europeanism in French music as something more like the 'decolonial analysis' recently articulated by William Fourie.[80] While the 'postcolonial' perspective implies a discrete 'pastness' of colonial*ism* (as governmental regime), the 'decolonial' acknowledges ongoing colonial*ity* in the structures of 'modernity' itself.[81] In the context of this thesis, such a move directs attention not just to the colonialism which enabled Jones's encounter with Sanskrit, but to the coloniality of the ensuing epistemic shift of comparativism, even (especially) as that shift became woven, inextricably but still identifiably, into the fabric of the 'modern' humanities – and indeed art. While Indo-Europeanism habitually eludes the gaze of 'postcolonial' francophone studies – after all, the construct emerged from British, not French,

[78] Segalen, *Essai sur l'exotisme: une esthétique du divers*.
[79] Tamara Levitz articulates a related critique of 'exoticism' as a prevalent critical category, observing how it flattens the range of factors that mediate cultural exchange, especially with regard to the interwar years, leading to simplistic readings: 'As an aesthetic, "exoticism" limits interpretation and confines historical analysis. Stylistic features of musical exoticism remained entrenched well after World War I and continue to be perpetuated today. But other aesthetic and musical relationships to alterity also developed in this period, including those that replicated the attitudes of missionaries, colonial administrators, tourists, émigrés, minorities in Europe, and others…' (*Modernist Mysteries*, 38).
[80] Fourie, 'Musicology and Decolonial Analysis in the Age of Brexit'.
[81] The framework of decoloniality has been developed by scholars such as Aníbal Quijano and Walter Mignolo; for a recent reference, see Mignolo and Walsh, *On Decoloniality*.

imperialism, and aligned itself more readily with nationalism than with 'exoticism' – the 'decolonial' stance focuses attention to more subtle, more tenacious dimensions of coloniality: not (only) representations of 'others', but the very constitution of 'knowledge'.

On methods and sources.

If the impact of Indo-Europeanist philology on musical composition is (a) the product of multiply mediated representations by philologists, musicologists, and composers, and (b) irreducible to set formal techniques or aesthetic markers, then another approach is required to gauge its imprint on musical composition. While Revuluri's proposition maps a necessary first step, it is not sufficient to replace study of the representations of composers with that of the representations of orientalists; to do so would defer, but ultimately reproduce, the interpretive traps which have stymied the study of 'exoticism'. In contrast, an alternative approach requires 'thinking *beyond* representation', as Rachel Beckles Willson has argued, to 'move beyond surfaces, forms, and meanings to grasp practice, process, embodiment, and performativity.'[82] I have found it most productive to think 'relationally': to study how philologists and musicians shared information, shaped intellectual and creative desires, and collaborated to realise the fantasy of Indo-Europeanism in music. In thinking through the philological mediation of music and the relationality of scholarly and musical socialities, I take inspiration from Georgina Born, who has theorised musical mediation and relational musicology thoroughly in a variety of contemporary contexts; and from Nicholas Cook, who has modelled a 'relational' approach to the study of intercultural musical engagements by zooming in on 'encounters' at the level of individuals and communities.[83] My study has revealed the presence of extensive social networks connecting philologists (and their work) and musicians (and theirs) – networks spanning generations and various institutional hubs, affording the circulation of knowledge and creative production through various means.[84] Philologists, musicologists, and composers connected through scholarly institutions (universities and learned societies), musical institutions (conservatoires or theatres), and even social institutions (special interest groups or salon series). Interactions between these actors

[82] Beckles Willson, 'Doing more than representing western music', 250.
[83] See Born, 'On Musical Mediation' and 'For a Relational Musicology'; and Cook, 'Anatomy of the Encounter' and 'Influences'. My thanks to Nick Cook for sharing the text of his lecture with me.
[84] My use of 'network' is thickened by Ben Piekut's musicological reading of Bruno Latour's methodology of 'Actor-Network-Theory' – according to which a network comprises not just successions of individuals, but must also attend to the 'inscriptions, institutions, technologies, media, and performances' which 'mediate' the circulation of ideas ('Actor-Networks in Music History', 192).

took many forms – relationships of collegiality and partnership; of professors with students; of authors with readers – and ideas circulated through many avenues – scholarly publications (monographs, articles, and reviews); prefaces and margins of musical scores; private correspondence; or concert performances and sociable soirées (sometimes leaving a textual trace, perhaps more often not). When francophone musicology was nascent, these networks constituted the core of the discipline, and the association of musicology with philology – or rather, of musicologists with philologists – was a strategic means of gaining disciplinary authority. As Tamara Levitz emphasises, disciplinary history is not just a 'history of ideas', but rather a web of material, interpersonal, and often mundane processes of professionalisation – many of which we shall observe in Part I.[85]

However, disciplinary actors were not isolated in an ivory tower, and neither philologists nor musicologists were disinterested with respect to the objects of their research, even if musicology's investments in creative practice have been downplayed in its disciplinary historiography.[86] The study of classical laws, literatures, languages, and musics – sometimes conceived in racial-essentialist and cultural-essentialist terms – often evinced a desire for their renaissance. It is in this aspect that the composers (and librettists) joined forces with scholars to sound and stage Indo-Europeanism in modern French music. Through this process, we witness not only how collaborations with philologists shaped compositional priorities and techniques, but also how these same actors engaged in the justification and advocacy for the musical decisions they made. As Katharine Ellis has written, 'if revivalists are to influence people they cannot afford to let the object of their crusade speak for itself. They must justify, attack, and defend, often in public'.[87] These acts constituted another dimension of mediation, between creators and publics – to borrow Jim Samson's phrase, 'a poetics of intention and reception'[88] – whereby musicologists and composers took pains to explain their experimentation and justify its scientific and/or artistic value. However, while composers' appeals to scholarship might generate a useful appearance of erudition and laborious research, excessive erudition could backfire among critics in the press, if seen to detract from artistic logic or sincerity. Here the historian must exercise caution. Rhetoric used by composers to

[85] Levitz, 'The Musicological Elite', 10.
[86] See, for example, the recent two-volume intellectual history of the *Revue de musicologie* and the Société française de musicologie (Balmer and Lacombe, eds., *Un siècle de musicologie en France*); despite its extensive scope and detailed attention to a variety of musicological actors, techniques, and practices, there is little comment on musicologists' engagements with ongoing creative practice.
[87] Ellis, *Interpreting the Musical Past*, xv–xvi.
[88] Samson, 'Nations and Nationalism', 588.

promote agendas and spotlight techniques does not always correspond to evidence gleaned from other sources, including private sketches and correspondence; and equally, composerly silence does not necessarily imply the absence of an agenda. By seizing upon 'the gap between discursive construct and musical material', as Born puts it,[89] we may reveal how composers construct and project 'authenticity', 'innovation', or 'scholarship' – and even, 'exoticism' – responding to and shaping critical and public perceptions in the process through a variety of 'speech acts'. In Part II, we shall observe a number of cases in which composers such as Alfred Bruneau and Camille Saint-Saëns 'perform' through such speech acts their scientific 'authenticity' – but also cases in which composers such as Albert Roussel and Maurice Emmanuel attenuate or suppress the same.

In its focus on relationality and performativity (not to mention its setting in late nineteenth- and early twentieth-century France), my research resonates with Samuel Dorf's recent monograph, *Performing Antiquity*.[90] Dorf examines a number of collaborations between hellenists (archaeologists especially, but also philologists) and artists (including dancers, composers, and musicians). I admire much about Dorf's approach – the range of the actors and intermediality of the works he draws together, and his attention to the affections and intimacies that the act of scholarship (often tacitly) presupposes. In this last aspect, he builds upon the 'reparative' turn in musicology – that is, an epistemologically ecumenical scholarly stance, oriented toward care and reconciliation as opposed to competition and critique – led by Suzanne Cusick and William Cheng.[91] In his interpretation of their appeal, a reparative study of 'early twentieth-century lovers of antiquity tries not to nitpick who got what wrong, but rather celebrates the performative impulse of the scholar.'[92] Dorf's compelling approach leads him to probe dimensions of scholarly subjectivity which are too often overlooked or repressed; yet at times, in my view, it also results in his glossing over the nationalism and racism integral to the scholarly or artistic 'performances' of some of his characters: 'It is still tempting to see ourselves in the past,' Dorf writes in a brief nod to 'race' and nationalism.[93] In his efforts to empathise, I wonder if Dorf defangs ideologies that were controversial even in their time, and which perhaps should not so easily be compartmentalised from more violent

[89] Born, 'For a Relational Musicology', 230.
[90] Dorf, *Performing Antiquity: Ancient Greek Music and Dance from Paris to Delphi, 1890–1930* (2019).
[91] See Cusick, 'Musicology, Torture, Repair', and Cheng, *Just Vibrations*. The formulation of 'reparative' (and their opposite, 'paranoid') readings is attributed to Eve Kosofsky Sedgwick.
[92] Dorf, *Performing Antiquity*, 155.
[93] Ibid., 14.

manifestations. In focusing on broad networks of scholars in dialogue, and by zooming in on the processes by which scholars formulate, sharpen, or soften their beliefs, I attempt to maintain a critical edge without condemning any individual. Like Dorf, I do not see my project as an opportunity to vilify previous generations of scholars for their misapprehensions (a temptation of fate if ever there was one) – which is why I, too, emphasise my own focus on how scholarship 'performed' its way into music – however I believe that this need not come at the expense of vigilance about scholars' oversights and biases, which contributes to an even fuller historical picture. Perhaps I have erred on the side of 'paranoid' criticism, and surely there is a balance to be struck.[94]

Paying attention to the dynamic relationships between musical and rhetorical evidence has led to unforeseeable research results, beyond the light it has thrown on the intellectual and creative impacts of Indo-Europeanism. Nowhere has this produced a greater surprise to me than with respect to my original questions regarding Messiaen's Indian rhythms, discussed in depth in Chapter 8. For a start, I have been able to account for the dimensions of Messiaen's compositional and discursive practice regarding Indian rhythms in the 1940s as I had hoped, with more explanatory force than could be achieved through aesthetic or stylistic analysis. But beyond this, two further insights emerged as a particular result of attention to relationships between philologists and musicians over the long term. First, Messiaen's encounter with Indian rhythms, mediated by a quasi-comparative philological search for structures and principles, permeated his music earlier in his career than has been realised (and this was, in fact, partly obscured through his own equivocal rhetoric). Second, it became clear that his engagement with Indian rhythms, viewed through the lens of philological mediation, was at the heart of his experiments in hyperrationalism, most famously epitomised in his piano étude, 'Mode de valeurs et d'intensités' (1949) – the piece credited with launching 'total serialism' when heard by Karlheinz Stockhausen and Karel Goeyvaerts at the Internationale Ferienkurse für Neue Musik, Darmstadt. There is scarcely an aesthetic link between this work's formal properties, expressed by Messiaen in an ultra-technical jargon, and Indo-Europeanist philology – quite the opposite. Rather, this link can be revealed only through a careful combination of relational (including rhetorical) and musical analysis in tandem.

[94] In her formulation of the concept, Sedgwick did not intend for the 'reparative' mode to replace the 'paranoid', but rather for the two to engage in productive tension and compensation, a fact noted by Cusick ('Musicology, Torture, Repair', par. 24), Cheng (*Just Vibrations*, 42), and Dorf (*Performing Antiquity*, 154–5) – although 'there is little to redeem the paranoid' in many self-consciously 'reparative' accounts, as Kate Guthrie points out in her critique of Cheng's book ('Why we *can't* all just get along', 480–1).

Moreover, these findings are precious as contributions to the active musicological project of understanding Messiaen's compositional technique.[95]

Ultimately, the distance travelled – between musical principles identified by philologists as 'Indo-European', and the extrapolation and deployment of principles toward hyperformalist ends – might point toward a particularity of music itself. As Georgina Born and David Hesmondhalgh ask: 'is there some special way that, because of its lack of denotation, and compared with the visual and literary arts, music hides the traces of its appropriations, hybridities, and representations, so that they come over time to be *naturalized and aestheticized?*'[96] If musical forms can accrue meaning through convention, they also lend themselves to a certain degree of interpretive flexibility and reinvention. Gesturing toward an answer, Born and Hesmondhalgh suggest that 'rather than the traces of musical appropriation simply being erased in time and in reception, they become, as with all musical elements, the object of changing discursive projections and interpretations, reinterpretations that in turn may become productive of new musical possibilities.'[97] In the course of this study, I shall survey many such 'changing discursive projections', conceived by philologists, musicologists, composers, and critics who bestow meaning upon musical building blocks. But there is a certain passivity about Born and Hesmondhalgh's formulation that may mystify music more than necessary: after all, the 'abstraction' of musical cultures into formal parameters was also the concerted result of the application of the comparativist method, which isolated 'structure' from 'content' – 'music-as-object' from 'music-as-meaning' – in order to assign historical or even 'ethnic', rather than programmatic, significance to unwitting successions of tones and pulses. Nor was the 'naturalisation' of those structures entirely passive or intrinsic to music, as authoritative actors advocated the adoption and assimilation of 'Indo-European' musical structures to French compositional style.

Finally, before diving into the study, I offer some brief reflections on the historical and primary sources forming the corpus of this thesis. A rich diversity of sources has been required in order to begin linking realms of scholarship with musical works through the examination of interpersonal and interdisciplinary relationships. My approach has been

[95] I am referring to the seismic impact within Messiaen studies of Balmer, Lacôte, and Murray, *Le modèle et l'invention*, discussed further in Chapter 8, below.
[96] Born and Hesmondhalgh, 'Introduction', 45 (their emphasis).
[97] Ibid., 46.

dynamic and multi-faceted, with particular attention paid throughout to paratexts. Most (if not all) of the scholarship and musical works discussed have been published in some form or another. Often, however, comparing the multiple forms in which music or scholarship are published (through arrangements, excerpts, serialisation, etc.) yields additional insight, as do specific individuals' copies of published materials, which may reveal annotations (or reveal themselves never to have been opened). Music criticism in the periodical press provides invaluable perspectives on how works were marketed and received, enriching the relational dimension of this project, and sometimes offering explanatory possibilities for compositional decisions which otherwise appear unintuitive. Furthermore, archival materials have informed every chapter to some degree. Letters between philologists, musicologists, and composers – some published, many not – have been key to understanding their collaborations and appropriations. Manuscript copies of musical scores and sketches at various stages of development have enabled a genetic criticism of composers' processes of musicological research and tactics of representation; at no stage has this been more important than in the case of Messiaen himself, whose complete archive continues to become increasingly available at the Bibliothèque nationale de France.[98]

The volume of material covered, particularly of *fin-de-siècle* philology, musicology, scores, and criticism, is made possible only by vast digitisation projects undertaken most notably by the BnF (Gallica) (and to a lesser extent, the KBR's counterpart, Belgica), the Internet Archive, and the International Music Score Library Project (IMSLP). The affordances of these databases are tremendous, in terms of the volume of resources they possess and their ever-improving searchability. These platforms have led me to sources I would not otherwise have located, and to glean themes and draw connections between sources in ways that would not have been achievable interfacing only with 'physical' materials. An ideology such as Indo-Europeanism does not always make itself obvious; initial search-strings helped identify the presence of ideas which might have been too marginal, latent, or even hegemonic to seize upon through cover-to-cover reading. Preliminary results indicated sources which merited holistic reading, and pointed to chapters and sections especially worthy of attention. When it came to lengthy philological textbooks, monumental music histories, and encyclopedias and reference volumes – books not naturally read in sequence in any case – these searches were

[98] F-Pn VM 30 FONDS MES. The inventory of Messiaen's archive continues to be updated regularly at time of writing; see https://archivesetmanuscrits.bnf.fr/ark:/12148/cc1019742 [accessed 3 June 2020].

helpful in flagging relevant materials in unexpected places. Furthermore, these technologies enabled the near-instant cross-referencing of multiple sources, thereby facilitating readings of these texts for their relational dimensions, attuned to affiliation and referencing practices from which scholarship derives authority, or with an eye to what John Haines called 'footnote quarrels'[99] – in short, to read texts obliquely, not only for the content of their argument, but also for the social relations and intellectual engagements they reveal.

However, even while 'I ♥ Gallica' (to echo Lisa Gitelman's cunningly search-engine-defying exclamation[100]), I am conscious of the questions Gitelman raises concerning the role of digital databases in scholarly methodologies – as she calls it, 'an encounter haunted by unknowns'[101] – particularly as part of a generation of researchers 'native' to such research technologies. These unknowns may only begin to be fathomed by media scholars in years to come, a predicament which generates a quantity of what Ben Walton has described as 'academic shame'. If anything, my 'shame' stems less from anxiety about 'corners cut through online pilfering',[102] and more from the impossibility of being exhaustive – both in the search process itself, as materials are digitised exponentially faster than they can be consumed, and also in the presentation of the inevitable flood of findings these searches yield. At times, Gallica feels more like a mineshaft than a shortcut. How does one know, Gitelman asks, 'when knowledge is born somehow of information'?[103] Confronted with seemingly unlimited information, it is a great challenge to distil knowledge. Another researcher seeking to locate the imprint of Indo-Europeanism in music could perhaps do so using a quite different set of documents and evidence than those I chose for Part I of this thesis, or different repertories for Part II.

Up against this overwhelming deluge of information, I have found relief in returning to musical works – not regressively or naïvely (the musical work is no pure oasis), but as a space in which to put knowledge *to work*, through interpretation. This is, in my reading, the 'return to the work' proposed by Antoine Hennion, who recognised, with optimism, how the study of music's mediations offered liberating interpretive potential: 'It is less a question of understanding everything (a formula whose epistemological terrorism is readily apparent) than of grasping something *at work*, from which a constantly changing interpretation can be

[99] Haines, 'The Footnote Quarrels of the Modal Theory'.
[100] Gitelman, 'Searching and Thinking About Searching JSTOR', 74.
[101] Ibid., 80.
[102] Walton, 'Quirk Shame', 121.
[103] Gitelman, 'Searching and Thinking About Searching JSTOR', 80.

presented.'[104] It is in this spirit that, through all of the intellectual-historical materials that this thesis covers, I implicate musical works along my trajectory, offering what I hope to be compelling and fruitful historical and musical readings.

Chapter summaries.

The thesis has two Parts, each comprising four Chapters. Part I, '*Philologie comparée*, *Musicologie*, and Indo-European Hypotheses', is organised around four case studies of overlapping intellectual networks spanning the *fin-de-siècle*. An introduction charts the narrative arc and theoretical devices structuring the Part as a whole, and sketches a prehistory of Indo-Europeanist philological thinking – specifically about music – in the writing of William Jones. In the subsequent chapters, I chart a roughly chronological course led by philologists and trailed by musicologists. Chapter 1 compares how François-Joseph Fétis and François-Auguste Gevaert respectively found exciting prospects and sobering limitations in the potential for comparativist methods to help establish music history. Chapter 2 traces how Louis-Albert Bourgault-Ducoudray, professor of music history at the Paris Conservatoire, developed an aryanist theory of music history in consultation with philologist Émile-Louis Burnouf, and propagated it in Parisian scholarly and musical circles; Burnouf's own contributions to musicology, encouraged by Bourgault-Ducoudray, are then examined. Chapter 3 explores how linguists were involved in shaping musicological techniques at the time of musicology's disciplinary institutionalisation. The second half of the chapter focuses on linguist Antoine Meillet's relationship with musicologists Pierre Aubry and Maurice Emmanuel. Over these three chapters, a loose trajectory is established: initially, racial-essentialist notions of Indo-Europeanism are presumed generative of language and culture, with music as a corollary; musical parameters like 'mode' and 'metre' are considered analogous to linguistic categories such as morphological roots and inflections. Later, as constructions of 'race' are dissociated from language, scholars reconceive of Indo-Europeanism as linguistic-essentialist, and attempt to pinpoint a metonymic relationship between phonological stress/accent and poetic/musical metre. Finally, Chapter 4 examines the musicological scholarship of Lyonnais Sanskritist Joanny Grosset, author most notably of the substantial chapter on Indian music in the *Encyclopédie de la musique et dictionnaire du Conservatoire* published in 1913. The thematic relevance and central musical importance of

[104] Hennion, 'Music and Mediation: Toward a New Sociology of Music', 259 (my emphasis).

Grosset's work warrants its inclusion alone, but Grosset, as a relative outsider, additionally provides an instructive contrast with respect to the networks charted in the first three chapters.

In Part II, 'Composing with Philology: Performances of Authenticity and Innovation', I trace how the intellectual networks elaborated in Part I infiltrated compositional practices, especially through the reification and appropriation of musical 'modality'; throughout, I examine paratextual evidence alongside musical analysis to show how composers legitimated experimentalism through 'performances' of philological 'authenticity'. Chapter 5 returns to Bourgault-Ducoudray, beginning with his arrangements of Greek folksongs and proceeding to original compositions including his opera, *Thamara*. With attention to both compositional techniques and rhetorical strategies, I show how he put music-historical theories of modal inheritance into creative practice, justifying them with scholarly authority, and presenting the results as an alternative to 'chromaticism', increasingly framed as Germanic. Chapter 6 follows Bourgault's modal devices and discursive tactics as they are adopted by other composers, including Bruneau and Saint-Saëns, to various ends. Chapter 7 focuses on the specific case of borrowings from 'Indian' music, with an emphasis on 'modes'; early on, composers implement, and 'perform' through paratextual labels, notions of Indian modality as a device to complement programmatic representation; over time, and through the intervention of philological methods, these modal techniques are increasingly used in abstract contexts, in conjunction with classical French musical forms, improvisation, and pedagogy. While many of the works discussed in these three chapters have remained on the margins of French music historiography, I demonstrate that the reception of these compositions among composers and pedagogues is often outsized compared to their public or critical profile, so that they form an important lineage which has not been accounted for in previous scholarship. Finally, the entirety of Chapter 8 is devoted to the case of Olivier Messiaen's engagement with early Indian metres. Reflecting the musicological pivot from 'Indo-European modes' to 'metres' in the early twentieth century, I survey Messiaen's experimentation with *deśītāla*s, thirteenth-century rhythms sourced in Grosset's chapter, and show how this interest was prompted by attempts by Meillet and Emmanuel to deduce structural principles of proto-Indo-European accent and metre which were discussed in Chapter 3. Turning to manuscript materials, I detail how Messiaen derived principles for organising durations 'additively' from his study of the *deśītāla*s over the 1930s and early 40s, observing Messiaen's careful silence regarding his techniques during this period. Finally, combining sketch study with musical analysis, I show how the philological mediation of Messiaen's appropriation of the *deśītāla*s leads them to

degenerate into increasingly abstract rhythmic series, culminating in hyper-rationalism at the end of the decade.

The division of the thesis into four intellectual-historical chapters followed by four compositional chapters emphasises one logical trajectory, whereby scientific production shapes cultural creation. However, by the same token, it breaks up certain continuities which might have been emphasised by other configurations: for example, Chapters 5 and 6, returning to Bourgault-Ducoudray, pick up roughly where Chapter 2 ends; similarly, Chapters 7 and 8 both revisit contexts and arguments of Chapters 3 and 4. Cross-references in the text and in notes refer readers to relevant discussions elsewhere in the thesis when applicable; otherwise, readers are invited to adjust their path in accordance with their interests.

PART I

PHILOLOGIE COMPARÉE, MUSICOLOGIE, AND INDO-EUROPEAN HYPOTHESES

INTRODUCTION TO PART I:
COMPARATIVISM, FROM LANGUAGE TO MUSIC

The four chapters of Part I span three generations of francophone musicology, demonstrating how musicologists (some 'avant la lettre') engaged with comparative philology and with specific notions of Indo-Europeanism. Before entering into the case studies, it will help to set out some of the trajectories of philological thought preceding the turn of the twentieth century – currents to which musicologists reacted in their own ways.

A trend arching over the later decades of the nineteenth century and into the twentieth might be roughly characterised as an attempt to refocus philological enquiry on what Anna Morpurgo Davies called the 'linguistic core' by reining in the endeavours of mid-nineteenth-century comparativists to extend the logic of linguistic comparison to broader domains of culture – the 'linguistic periphery' – of which music might be considered a part.[1] Attempts to extrapolate linguistic methods to domains beyond language had amounted to a slippage of essentialisms, and the first of these was linguistic essentialism itself: a misapprehension of language as a fixed and stable entity, caused by philologists' misplaced faith in texts as (mere) representations of 'languages', sufficient for the study of language history. Perceived properties of a language were in turn attributed to its speakers; relationships between languages thus implied relationships between their speakers. By the time linguists began to realise that language was far less stable an object than they imagined, racial-essentialist constructions founded on the basis of language families (aryan, semite, turanian, and others) were widespread; and scholarly discourses around mythology, religion, classics – and to an extent, music – had been established on the basis of these essentialisms.

As musicians like François-Joseph Fétis and Louis-Albert Bourgault-Ducoudray sought to recover analogous filiations in the realm of music, they set about determining which musical elements could be legitimately compared cross-culturally, just as verbal roots were compared cross-linguistically. The fact that they both seized upon pitch – or, more precisely, collections of pitches – as the salient parameter by which to study musical structures reveals in retrospect more about their own epistemic biases than it does about the musical cultures they studied and attempted to fix down. While pitch collections – i.e., scales or 'modes' – were indeed features

[1] Morpurgo Davies, *Nineteenth-Century Linguistics*, 290.

which structured the way music, via melody and harmony, was conceived in nineteenth-century French practice, and while analogies might be drawn between French 'scales' and various pitch collections recorded in other times and places, French musicologists soon began to realise what philologists had themselves struggled to learn: that similarity of appearance did not guarantee commonality of origin. As Jules Combarieu later put it, both Fétis and Bourgault-Ducoudray 'reversed the relationship between the two terms of comparison, and took as a fundamental principle what was only a derivative'.[2]

Toward the end of the century, philologists increasingly concluded that the comparative method could not easily be applied beyond language itself, the domain for which it was conceived (and even the linguistic essentialism upon which comparative philology was postulated was proving illusory). Comparing musics in the manner of languages relied upon an implicit metaphor between musical and linguistic 'structures' – specifically, the analogy that 'modes' were to music as verbal roots were to language – which did not hold up to scrutiny; Pierre Aubry, a musicologist of Combarieu's generation, learned this, as we shall see in Chapter 3. Reluctant to abandon the musical origins quest, however, he attempted to refine the analogy by finding a musical parameter that could legitimately be compared as morphemes could. The emerging skeleton key was metre: metre, some reasoned, was equally intrinsic to language (through phonological stress), poetry (through poetic prosody), and music (through its connection to rhythm). The relationship between metre and language appeared, therefore, to be more than metaphorical – it appeared metonymic. The gradual shift of attention from 'mode' to 'metre' lent musicology's philological impulse a new lease of life.

To an extent, music had been present from the earliest days of comparative philology and the Indo-European hypothesis through the musical scholarship of William Jones himself. Jones undertook study of Indian musicological texts in 1784, and published an expanded version of his 'On the Musical Modes of the Hindus' in the 1792 issue of *Asiatick Researches*. Jones's musicological article has been reappraised in a number of historiographical accounts of Indian music and ethnomusicology over the years.[3] But Jones's long-term impact on musicology was

[2] Combarieu, 'Le Charlatanisme dans l'archéologie musicale au XIXe siècle', 202; 'il a renversé les rapports des deux termes de la comparaison, et pris pour un principe ce qui n'est qu'un dérivé'.
[3] See, e.g., Powers, 'Indian Music and the English Language'; Bor, 'The Rise of Ethnomusicology'; Farrell, *Indian Music and the West*, 23–6; and Zon, *Representing Non-Western Music in Nineteenth-Century Britain*, 48–59, among others. For perspectives on and reappraisals of Jones's legacy within Indian musicology, see also Schofield, 'Reviving the Golden Age Again' and Williams, 'Music, Lyrics, and the Bengali Book'.

not limited to the study of Indian music; the implications of his method, and of the discipline that was founded in the wake of his scholarship, shaped French musicology at large. The importance of Jones's methodological impact on comparative philology, in combination with his foray into musicological territory, justifies a word regarding his article on 'Hindu' music, which became extremely popular throughout Europe.[4]

In his study, Jones opened up the possibility of 'reconstructing' ancient Indian music via philological techniques. Texts were key to his conception of what Indian music was. Jones ultimately hoped to recover Indian music from original sources, ferreting out inconsistencies in search of an original truth. He rested his study on the essentialist premise of an ancient 'Hindu' culture, which could only be apprehended by 'drinking from the pure fountain of *Hindu* learning'.[5] He specifically indicted Muslim writers on Indian music: they are 'wholly unable, yet always pretend, to write *Sanscrit* words in *Arabic* letters' – a pointedly philological criticism, targeted less at what they wrote but of how they transmitted text.[6] Jones modelled a 'textual attitude' to the study of musical culture, perhaps best evinced by his remarks on 'the most valuable book' he saw in India, the *Rāgavibodha*, an early seventeenth-century text by Somanātha.[7] Jones wrote, on the one hand, 'it ought here to be mentioned very particularly, because none of the *Pandits*, in our provinces, nor any of those from *Cási* or *Cashmír*, to whom I have shown it, appear to have known that it was extant'; and on the other hand, that 'this book alone would enable me, were I a master of my time, to compose a treatise on the music of *India*'.[8] In other words, had Jones attempted a fuller study of 'pure' Indian music, he would have based it chiefly on a source unknown to any musicians or experts he encountered while in India.

[4] Bor counts at least eight reprintings in German of 'On the Musical Modes of the Hindus' ('The Rise of Ethnomusicology', 57–8).
[5] Jones, 'On the Musical Modes of the Hindus', 65 [Jones's emphasis]. The use of the religious designation 'Hindu' to describe Indian music and culture persists throughout the nineteenth century, sharing Jones's overt goal to distinguish the 'pure' music from that which was supposedly influenced by Muslim infiltration.
[6] Ibid. [Jones's emphasis]. Jones appears unable to see the parallel between his writings on Indian music and his transliteration of the Sanskrit language into the English alphabet, and that of the Persian writers to whom he is so hostile.
[7] Somanātha, also called Soma, developed a system of 51 rāgas, classified according to 23 scale subsets of 17 pitches. Soma is understood to represent the Carnatic, or Southern Indian, musical tradition, at a period shortly after the distinction between Carnatic and Hindustani traditions stabilised. This context is important in light of Jones's fixation on 'pure' Hindu music (see Emmie te Nijenhuis, *The Rāgas of Somanātha*, I, 3).
[8] Jones, 'On the Musical Modes of the Hindus', 66–7 [Jones's emphasis].

Bennett Zon comments that Jones's musical treatise features 'curiously' little music.[9] Yet, if we read 'On the Musical Modes of the Hindus' not as an early 'ethnomusicological' tract, but rather as the work of a philologist, Jones's approach may be less surprising. Just as the object of Jones's literary analyses had become the medium of literature – language – itself, Jones's particular musical interests lie not in music as it is performed, but rather in the 'raw materials' of its construction – in this case, tones and modes. For example, Jones elaborates a systematised regime of modes, the 'rāgas' and 'rāginis', following his understanding of Soma's text. He follows this with the same theoretical system as laid out by two later sources; but where there are divergences, his explicit preference is for the former source, with the latter two supplied merely to account for anomalies or omissions from the original *Rāgavibodha*.[10] Thus Jones's priority is to restore the musical structures present in the oldest sources he can access. This methodology allows him subsequently to compare his findings with Greek modes, the 'Chinese scale', Egyptian modes, and so forth, all while keeping in mind the search for origins that stimulated his disquisitions on the Sanskrit language.[11] In the next chapter, we shall see that Fétis put great stock in Jones's work and methods, favouring Jones's transcription of ancient written sources over descriptions of Indian music experienced live.

In 1965, Harold Powers (foreshadowing Zon's *mot juste*) wrote that Jones's treatise 'could only be of interest as a scholarly curiosity; there is nothing in it which is not either wrong or superseded'.[12] Much of the scholarship covered in Part I of the dissertation could be painted with a similar brush, and consequently, today's musicologists no longer learn about Indian music by reading Fétis, Greek music by reading Bourgault-Ducoudray, or 'proto-Indo-European music' by reading Aubry. However, when these studies were published, their authors were at the cutting edge of a young discipline, and their scholarship represented authoritative resources for musicians and publics – particularly in Third Republic France, when awareness of music history was becoming a matter of one's enculturation.[13] One can easily dismiss the scholarship surveyed in the chapters of Part I, and it may seem irrelevant to trace its development with such a fine-toothed comb. However, if we suspend concern for

[9] Zon, *Representing Non-Western Music in Nineteenth-Century Britain*, 53.
[10] Jones, 'On the Musical Modes of the Hindus', 77–82. The two other sources are: (1) The *Saṅgītadarpaṇa* of Dāmodara (ca. 1625, as cited in the *Nārāyan*), and (2) *Tuḥfat al-Hind* ('A Present from India', ca. 1675), a Persian source by Mirza [Medhi] Khan [Astarabadi].
[11] Jones, 'On the Musical Modes of the Hindus', 82–3 and passim.
[12] Powers, 'Indian Music and the English Language', 1.
[13] Pasler, *Composing the Citizen*, esp. ch. 5.

veracity in a presentist sense, in favour of the hermeneutic truths these sources reveal about nineteenth-century thought, such close attention will be rewarded in Part II, when these intellectual twists and turns are translated into compositional experiments. We may not learn much about Indian or Greek music from these scholars; but we shall learn much about French music.

CHAPTER 1

EARLY MONUMENTS: FÉTIS'S AMBITIONS, GEVAERT'S REJOINDERS

Two early and consequential encounters between francophone music studies and comparative philology arose beyond French borders, in the scholarship of François-Joseph Fétis (1784–1871) and of François-Auguste Gevaert (1828–1908). Each figure's debts to the comparative discipline are exhibited in their ambitious multi-volume works. In Fétis's case, this was his *Histoire générale de la musique depuis les temps les plus anciens jusqu'à nos jours* (1869–75), the career capstone which remained incomplete at five volumes out of a projected eight (with three of those five published posthumously).[1] In Gevaert's, it was his two-volume *Histoire et théorie de la musique de l'antiquité* (1875–81), plus its sequel *La Mélopée antique* (1895), a corpus of scholarship on ancient music which has been recognised as 'without peer'.[2] Fétis and Gevaert share a number of commonalities beyond their Belgian nationality: their compositional beginnings; their turn to musicology (alongside music criticism, in Fétis's case); their administrative destinies as successive directors of the Royal Conservatoire of Brussels (where each served for consecutive periods of 37 years); and not least, their apparently enormous egos, described in Gevaert's case as 'transcendental'.[3] Both figures, as Ernest Closson wrote, assumed a proprietary stance with respect to the study of music, as though it were a realm of personal dominion; Katharine Ellis, and Closson, have demonstrated how both scholars in various ways suppressed the work of others to maximise the monumentality of their own.[4]

Despite these similarities, Fétis and Gevaert differed starkly in their scholarly temperaments. Fétis's completist ambitions and desire to promote himself as a 'one-man phenomenon', as Ellis puts it,[5] came at the expense of scrupulousness, and his desire to manifest the scientific importance of music studies sometimes guided his scholarly claims more than evidence. Gevaert, by contrast, made positivism a point of pride. Closson recounts Gevaert's disdain for those who 'make books out of other books', propagating errors without firsthand verification.[6]

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[1] Christensen, *Stories of Tonality*, 184.
[2] Everist, 'Gevaert, "Musicology" and "La Musique Ancienne"', 99.
[3] Closson, *Gevaert*, 25; 'Gevaert poussa l'égoïsme jusqu'à un degré transcendental'.
[4] Ellis, 'The Making of a Dictionary', 66–8; Clossen, *Gevaert*, 25–6.
[5] Ellis, 'The Making of a Dictionary', 68.
[6] Clossen, *Gevaert*, 17; '"font des livres avec des livres"'.

It is hard not to conclude that Fétis, whose famed 8,000-volume library has been called his 'most important work',[7] is the implicit target of his remark. Perhaps the most damning confirmation of Gevaert's low esteem for Fétis's scholarship is the paucity of reference to Fétis's work in Gevaert's own.

It is striking, given their significant differences, that both Fétis and Gevaert frame their musicological studies in relation to prevailing philological theories of Indo-Europeanism. Each accepts, en bloc, the hypothesis of an Indo-European heritage and its significance for contemporary science. However, they differ in their reflections on the place of Indo-Europeanism in music history and in their approach to applying comparativist philological methods and conclusions to musical objects. Fétis, ever-zealous in his prospects, is keen to locate music's role, alongside language and 'race', as a marker of human ethnic 'difference' and history; Gevaert, ever-cautious in his claims, resists facile inference from linguistics to musicology, while nonetheless pursuing concerted, if limited, engagements with philology and Indo-Europeanism. These contrasting approaches thus set out a useful point of departure for this study, providing something like 'ideal-type' poles of contact between philology and music studies built upon by future generations of scholars and musicians.

Fétis's ambitions and affiliations.

In the 1840s, Fétis had developed an internalist theory of tonality which sought to account for the stages of its genesis (*unitonique*), development (*transitonique*, *pluritonique*) and overripening (*omnitonique*) over the course of European music history. By the 1850s and '60s, his horizons had widened considerably into what Thomas Christensen calls his 'ambitious attempt to integrate the history of music within a general ethnological history' of humanity.[8] If his initial attempts to theorise tonality owe a debt to the philosophies of Hegel and Cousin,[9] the intellectual impetus of this expanded project appears largely due to Fétis's apprehension and appropriation of comparative philology. Even amid the proliferating scholarly methodologies emerging over the mid-nineteenth century, to which Fétis was privy – including anthropology, archaeology, anatomy, and biology – Christensen singles out

[7] Campos, *François-Joseph Fétis musicographe*, 47.
[8] Christensen, *Stories of Tonality*, 184.
[9] See Christensen, 'Fétis and Emerging Tonal Consciousness'.

comparative philology for its 'incalculable importance for [Fetis's] own theories of music history and tonality'.[10]

Fétis offered an early sketch of his grand historical vision as early as 1850 in a letter to Franz Liszt. The history and displacements of human populations, Fétis explained, had been 'demonstrated by the Sanskrit roots which abound in all the languages of Antiquity and modernity; as for me, I prove it through the analogy of the scales of India, as they existed four thousand years ago, with those of Arabia, which have not changed since the time of the Bible.'[11] Fétis imagined, he explained to Liszt, a congruence between the Greeks' 'enharmonic genus' and the little intervals described by the Indian theorist Soma; from there, music progressed toward the 'more easily graspable' chromatic genus, then to diatonicism, the source of plainchant tonality. He went on to situate his theory of the *-toniques* at the end of this long prehistory. This grand narrative, Fétis explained, was the opposite of conventional wisdom, according to which simple diatonicism preceded complex chromaticism. In other words, Fétis upended the traditional musical historiography by comparing theoretical Indian and Greek intervals of smaller than a tone and attributing to them a common origin based on linguistic filiations.[12]

It took Fétis some time to flesh out his narrative in sufficient detail to present it to the scholarly community at large. His eventual attempts to insinuate the study of music into broader scientific consideration are perhaps best exemplified in his notorious address on 'a new classification of human races according to their musical systems', delivered in 1867 to the Société d'anthropologie de Paris and echoed in the early pages of the *Histoire générale*.[13] Much has rightly been made by Jann Pasler and Christensen of Fétis's debts to anthropologists and race scientists including Arthur de Gobineau and Paul Broca (the latter of whom responded with enthusiasm to Fétis's hypothesis).[14] After all, it is through music, and a

[10] Christensen, *Stories of Tonality*, 184–5. While Christensen rightly recognises the importance of comparative philology for Fétis, he does not pursue the specific implications of Fétis's appropriation of the comparative philological epistemology, as distinct from the conclusions being reached by 'race' scientists on whom Fétis also relied.
[11] Fétis, *Correspondance*, 274–5; 'L'identité de l'origine de tous ces peuples a été démontrée par les racines sanscrites qui abondent dans toutes les langues de l'Antiquité et des temps modernes; je la prouve moi par l'analogie des gammes de l'Inde, telles qu'elles existaient, il y a quatre milles ans avec celles de l'Arabie, qui n'ont pas changé depuis les temps de la Bible…'
[12] It is interesting that the various *-toniques* appear unmentioned in the *Histoire générale* two decades later.
[13] Fétis, 'Sur un nouveau mode de classification des races humaines d'après leurs systèmes musicaux'.
[14] Pasler, 'Theorizing Race in Nineteenth-Century France', 464–6; Christensen, *Stories of Tonality*, 203–4.

reconceived framing of 'tonality' within the history of various musical systems, that Fétis sought to substantiate a polygenist history of humanity. The *Histoire générale* would be organised in precisely this way, its chapters grouped under headings devoted to racial groups – an organisation which reflects an intellectual inheritance from figures like Gobineau (in its hierarchised scheme of racial categories based on skin colour, as in the early books of the first volume) and Ernest Renan (in the binary opposition of 'aryan' and 'semitic' races which structures much of the first three volumes).[15] Yet although the 1867 address was delivered to an anthropological audience, Fétis begins by allying his studies with the discipline of linguistics, arguing that the study of textual artefacts revealed the ethnic composition and movement of peoples.[16] By drawing 'ethnic' conclusions from linguistic evidence, Fétis followed any number of philologists in their attempts to extend their claims beyond a 'linguistic core' to an ever-expanding 'periphery' – one which he believed should include the study of music. The connection drawn by philologists between language and 'race' became the model for Fétis's own pursuit of a similar connection between music and 'race'. However, in his attempt to ride philology's coattails, Fétis papered over certain logical fallacies, while introducing philology's epistemological prejudices into his approach. To see this, let us examine in closer detail the mechanics of Fétis's appeals to philology, which will provide a basis of comparison to the approaches of his musicological successors.

In the opening pages of the *Histoire générale*, Fétis declares his enthusiasm for the promising horizons of the philological and linguistic discipline in a homage to Franz Bopp. 'Bopp,' he writes,

> perfectly established that there are certain forms in the functioning of the Greek language which, inexplicable on their own, can only be explained with recourse to Sanskrit; that the same is the case in the relationship of Latin to Greek, and in the relationship of classical languages to Germanic languages; these relationships, previously unknown, are not only made plain today by comparative philology, but the similarities between their mechanisms have been demonstrated in the finest detail.[17]

[15] Christensen notes the thorough annotations in Fétis's personal copy of Gobineau's *Essai sur l'inégalité des races humaines* (*Stories of Tonality*, 204); and I can attest to pencilled annotations in Fétis's copy of Renan's *Histoire générale et système comparé des langues sémitiques* (1863), held at B-Br, Fétis 525 A.
[16] Fétis, 'Sur un nouveau mode de classification des races humaines d'après leurs systèmes musicaux', 134–6.
[17] Fétis, *Histoire générale*, I, iii; 'Bopp a parfaitement établi qu'il y a dans le système de la langue grecque certaines formes qui ne peuvent être expliquées par elles-mêmes et sans le secours du sanscrit; qu'il en est de même des rapports du latin avec le grec, et des langues classiques avec les idiomes germaniques; rapports ignorés naguère et qui, non-seulement sont rendus évidents aujourd'hui par la philologie comparée, mais dont les analogies de mécanisme ont été démontrées dans les moindres détails.'

As a description of Bopp's contributions to linguistics, this assessment seems fair enough. However, Fétis then continues:

> And why these relations, these resemblances which are so fine in the construction of these languages, if it is not because the peoples who spoke them and speak them still are all born of the aryan race?[18]

Here, Fétis rehearses a tautological argument at the heart of so many attempts to expand beyond the 'linguistic core': presumed 'racial' groups, such as 'aryan' and 'semite', although extrapolated from linguistic relationships, are here presumed to be the ethnic, or biological, *basis* of those very same relationships. Leaving his rhetorical question unanswered, Fétis goes on to declare: 'What is true for languages is also so for music'.[19] This analogy between language and music, asserted as self-evident, is the second major fallacy – the false equivalence – underlying the entire *Histoire générale*. It is on the basis of this analogy that, as Christensen put it, Fétis could 'piggyback a lineage of musical tonalities on the Indo-European stemmata that his contemporaries were sketching out.'[20] Referencing the question of harmony in ancient Greek music (the subject of some of the most fraught musicological disputes between Fétis and figures including Raphael Georg Kiesewetter, August Böckh, Alexandre-Joseph Vincent, and eventually Gevaert), Fétis now conjectured a new way through the impasse via the comparative study of Greek music's Indo-European ancestors in India and Persia – leading to a conclusion that conveniently supported his previous attempts to dissociate ancient Greek music from Arabic and Egyptian music.[21] '*Comparative philology*', Fétis would reaffirm later in the volume, has 'provided the enlightenment which makes it possible to resolve heretofore unsolvable historical problems.'[22]

In practice, the imprint of comparative philology on Fétis's *Histoire générale* is somewhat haphazard, uneven, and not without interdisciplinary frictions. As a point of departure, we might consider four ways the discipline made its mark on Fétis's work. First, as we have already glimpsed, the structural organisation of the work is based on 'racial' categories which are, themselves, derived partly from philological deductions regarding linguistic filiations. Second, Fétis peppered his work with relational gestures of citation and affiliation: in addition

[18] Ibid.; 'Et pourquoi ces rapports, ces analogies si délicates dans la construction de ces langues, si ce n'est parce que les peuples qui les ont parlées et les parlent encore sont tous issus de la race arienne?'
[19] Ibid.; 'Ce qui est vrai pour les langues l'est aussi pour la musique'.
[20] Christensen, *Stories of Tonality*, 187.
[21] Fétis, *Histoire générale*, I, iii.
[22] Ibid., I, 305; '...la création de la méthodologie connue sous le nom de *philologie comparée*, [a] fourni des lumières qui permettent de résoudre des problèmes historiques auparavant insolubles' [Fétis's emphasis].

to his early tribute to Bopp, Fétis took care to cite dozens of philologists, not only in his introduction but throughout the text. Fétis revisited the fieldwork of Guillaume-André Villoteau in Egypt, updating it with knowledge furnished by Eugène Burnouf, Christian Lassen, Niels Ludvig Westergaard, Henry Rawlinson, and Karl Richard Lepsius – a fleet of philologists representing institutions in France, England, Germany, and Scandinavia, enumerated by Fétis as if to flaunt the range of his erudition (which is further evinced by the hundred-plus linguistics volumes in his personal library).[23] A third trace of the philological imprint on Fétis's work might be found in the presentation of musical 'data' in comparative charts, reminiscent of Boppian tables of conjugations and declensions. Fourth and finally, when applicable, Fétis appropriated the epistemological methods guiding philological research, and in particular, what Said called philology's 'textual attitude' – its deduction of definitive and 'original' forms through comparison, and its privileging of textual evidence over modern practice as a source of 'knowledge'. As Siraj Ahmed puts it, comparative philology 'identifies tradition with texts alone' – 'not on native experience, therefore, but on its destruction'.[24]

Each of these four characteristics is neatly illustrated in Fétis's voluminous chapter on Indian music in the second volume of the *Histoire générale*. As the first of Fétis's several chapters on the music of 'aryan peoples', it is a logical place to pursue our examination of constructions of musical Indo-Europeanism. Organisationally, Fétis began his study of 'aryan' music with India and Persia because those were the lands which he presumed (citing German philologist Albrecht Weber) to be the 'cradle' of the 'aryan race'.[25] From there, the westward progression to Greece and then Italy by Fétis's third volume parallels what was then, for many, a presumed linguistic lineage from Sanskrit to the modern languages of Europe.

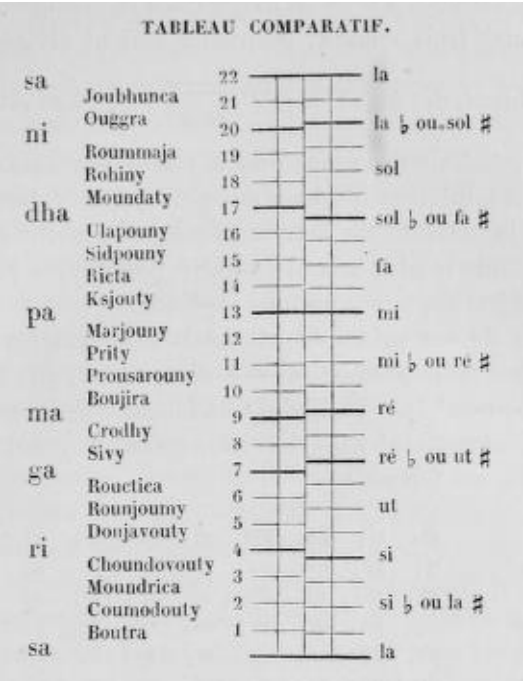
Given the prominence of Sanskrit and Indology within the discipline of comparative philology, it is not surprising that the chapter exhibits some of Fétis's most extensive engagements with philological research. He begins with a discussion of the Vedas and the Sanskrit language, informed by the studies of (among others) Weber, Alexandre Langlois,[26]

[23] On the breadth and organisation of Fétis's library, see also, Campos, *François-Joseph Fétis musicographe*, 47–66; 201.
[24] Said, *Orientalism*, 92; Ahmed, *Archaeology of Babel*, 38.
[25] Fétis, *Histoire générale*, II, 185.
[26] Fétis misattributes Alexandre Langlois's translation of the *ṛgveda* to Victor Langlois (*Histoire générale*, II, 186n1).

Friedrich August Rosen, Charles Wilkins, Adolphe Pictet*, and Émile Burnouf (these last two names will return later). However, beyond simply reading philologists' work, Fétis sought their advice. In one capacious footnote Fétis cites his personal correspondence with no fewer than five eminent philologists – Theodor Goldstücker, Garcin de Tassy, Max Müller, Philippe-Édouard Foucaux, and Hendrik Kern – relative to Indian music and musical sources.[27] Warnings from philologists like Müller and Tassy regarding the scarcity and incompleteness of European knowledge about Indian music did not deter Fétis, who cited Müller's cautionary words not in order to temper his confidence but rather to boast that the 'perseverance of his efforts had been rewarded with success' in the form of a manuscript of the *Saṅgīta Darpaṇa*, which he was in the process of having translated. Fétis thus positioned himself not only as a consumer of philological research, but as a participant in the philological community, and even a motor driving the community's research agendas by commissioning translations.

As he narrows in on the specifics of Indian music, Fétis structures his study in terms of parameters like scales and rhythms, which are compared with their modern European counterparts. The 'tonal system of the Aryas of India', Fétis declares, is the earliest of all such systems, the fount 'from which the musical systems of all aryan peoples emerged, even as they undergo various modifications'.[28] Fétis uses comparative tables to measure Indian scales alongside familiar European standards (Fig. 1.1*a*–*b*). While these comparisons highlight differences between the Indian and European 'tonal' systems on a micro level, the prevailing effect of comparative tables is to subsume these differences beneath the common axis facilitating comparison in the first place. Divergences between the two systems are thereby reduced to the scale of 'various modifications' which do not undermine, but rather reinforce, the continuity of Fétis's historiographical narrative.

[27] Fétis, *Histoire générale*, II, 199–200n1. Some of Fétis's exchanges with philologists, dating as early as the 1840s, can be found in Fétis, *Correspondance*.
[28] Fétis, *Histoire générale*, II, 204; 'Le premier de ceux-ci, dans l'ordre chronologique, est le système tonal des Aryas de l'Inde. C'est de lui que sont sortis les systèmes musicaux de tous les peuples de race arienne, en passant par divers genres de modifications.'



1	sa,	ri,	ga,	ma,	pa,	dha,	ni,	sa.
2	ri,	ga,	ma,	pa,	dha,	ni,	sa,	ri.
3	ga,	ma,	pa,	dha,	ni,	sa,	ri,	ga.
4	ma,	pa,	dha,	ni,	sa,	ri,	ga,	ma.
5	pa,	dha,	ni,	sa,	ri,	ga,	ma,	pa.
6	dha,	ni,	sa,	ri,	ga,	ma,	pa,	dha.
7	ni,	sa,	ri,	ga,	ma,	pa,	dha,	ni.

Ces modes répondaient aux formes suivantes de la gamme européenne, sauf les différences d'intonations de quelques sons, constatées dans le tableau de la page 207.

1	la,	si,	ut,	ré,	mi,	fa,	sol,	la.
2	si,	ut,	ré,	mi,	fa,	sol,	la,	si.
3	ut,	ré,	mi,	fa,	sol,	la,	si,	ut.
4	ré,	mi,	fa,	sol,	la,	si,	ut,	ré.
5	mi,	fa,	sol,	la,	si,	ut,	ré,	mi.
6	fa,	sol,	la,	si,	ut,	ré,	mi,	fa.
7	sol,	la,	si,	ut,	ré,	mi,	fa,	sol.

Figures 1.1*a–b*: Tables from Fétis's *Histoire générale de la musique* (II, 207–8) comparing pitches of Indian scales to European counterparts.

Finally, Fétis mimics philology's 'textual attitude' in his appraisal and treatment of the various source materials to which he has access. For much of the chapter, Fétis's principal musicological source is Jones's *On the Musical Modes of the Hindus* (cited from multiple English editions and a German edition), flanked by William Ouseley's *Anecdotes of Indian Music* (1797), J. D. Paterson's *On the Grámas or Musical Modes of the Hindus* (1802), and N. Augustus Willard's *Treatise on the Music of Hindoostan* (1834). Willard's *Treatise* differs from these others in its explicit focus on musical practice over obsolete theory, a trait which has earned him a relatively warm reception among recent historians.[29] Fétis was rather less impressed: appropriating comparative philology's preoccupation with origins, Fétis found himself in far greater sympathy with Jones than with Willard. Calling his *Treatise* 'superficiel', Fétis criticises Willard above all for his adoption of Bengali terminology instead of the Sanskrit.[30] Where Willard, following Jones by several decades, incisively criticised Jones's speculative, 'philosophical' recourse to 'books alone', these were precisely the

[29] See Bor, 'The Rise of Ethnomusicology'; Zon, *Representing Non-Western Music in Nineteenth-Century Britain*, and Schofield, 'Reviving the Golden Age Again'.
[30] Fétis, *Histoire générale*, II, 224; 204; 248. Fétis also writes that Adrien de La Fage's *Histoire générale de la musique et de la danse* (1844) 'teems with errors and nonsense' ('fourmille d'erreurs et de non-sens'), largely in response to La Fage's embrace of Willard's research (II, 204–5n1). La Fage's positive appraisal of Willard's exceptional approach makes La Fage's own work an outlier, as has also been noted by Joep Bor, who writes of La Fage: 'Perhaps the only 19th century music historian who had come to understand that Willard's treatise, in spite of its shortcomings, was superior to those of Jones and Dalberg' ('The Rise of Ethnomusicology', 61).

grounds upon which Fétis judged Jones's work superior.[31] Perhaps Fétis's disparagement of Willard was directly prompted by the opinion of one of the philologists with whom he was in correspondence: in an 1845 letter, Garcin de Tassy wrote to Fétis that 'the work of Captain Willard is entirely insufficient and can give only a highly imperfect idea' of Indian music.[32]

Notwithstanding Fétis's admiration for the linguistic discipline and the philological approach, Fétis pounced at the opportunity to contest philologists' authority on matters musical. Fétis's reading of Jones exposes moments of friction in the quest to make modern musical 'sense' out of philological data. For example, contesting Jones's own terms of musicological comparison, Fétis disputes Jones's conversion of the '*sa*' syllable of the Indian system to the '*ut*' of the European scale, on the grounds that the Persian musical scale begins on '*la*' rather than '*ut*', and Persians are, like the Indians, 'aryan' descendants.[33] He similarly tweaks Jones's rendition of the mode '*Sriraga*', this time reinterpreting Jones's own translation of a Sanskrit verse.[34] Most audacious is Fétis's rewriting of the air from the *Rāgavibodha* with which Jones concludes his volume.[35] Fétis finds 'errors', not only in Jones's conversion of the modes from the Sanskrit syllabary to solfège, but even in his ability to distinguish the proper *devanāgarī* letters in the original manuscript – a manuscript which, of course, Fétis has never laid eyes upon, other than in the crude facsimile reproduced in Jones's treatise (Figs. 1.2*a–c*). The idea that Fétis could reconstruct Jones's transcription (Fig. 1.2*d*) is conceivable only because the two writers share a common textual attitude, according to which valuable information is to be derived not from the primary experience of tradition, but rather from the traces that might be gleaned from texts, if properly coaxed by the philologist. Thus Fétis offers a radically overhauled interpretation of this manuscript, correcting it in his own 'ordinary' Sanskrit notation.[36]

[31] For more on Willard and his reading of Jones, see Zon, *Representing Non-Western Music in Nineteenth-Century Britain*, 252–5.
[32] Fétis, *Correspondan*ce, 198; '...l'ouvrage du Capitaine Willard est tout à fait insuffisant et ne peut qu'en donner une idée très imparfaite' (letter dated 13/v/1845).
[33] Fétis, *Histoire générale*, II, 206n1.
[34] Ibid., II, 217n1.
[35] Ibid., II, 251–6. Christensen draws attention to Fétis's earlier rewriting of Jones's air in the much 'Résumé philosophique de l'histoire de la musique' which preceded the first edition of his *Biographie universelle* (1835) (*Stories of Tonality*, 166–8); Fétis substantially reworked his own reinterpretation of the same air for the *Histoire générale*.
[36] Fétis, *Histoire générale*, II, 255.

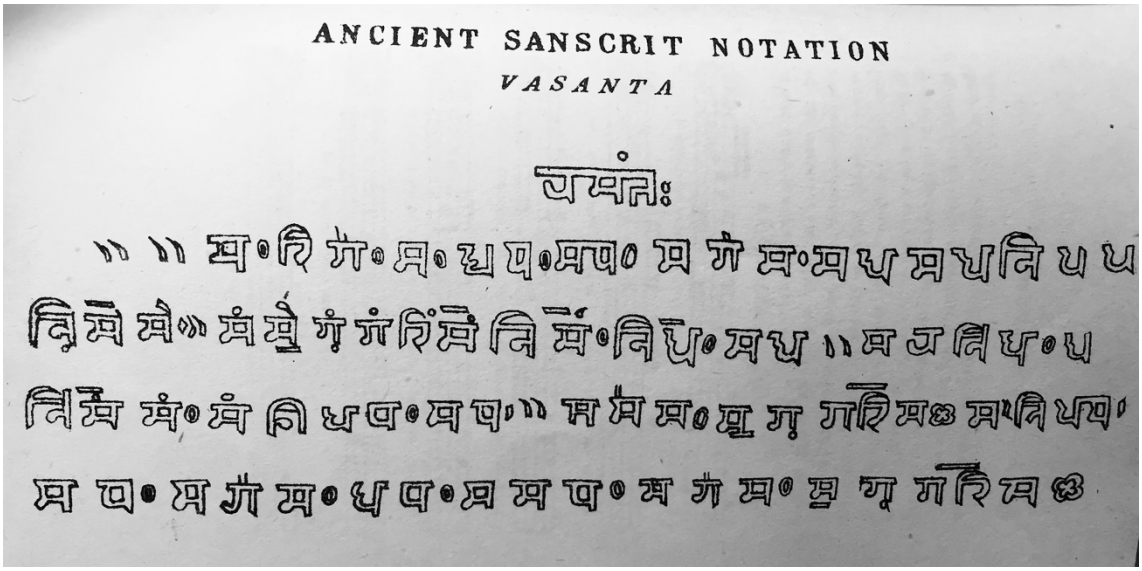


Figure 1.2*a*: Air from the *Rāgavibodha* transcribed by William Jones

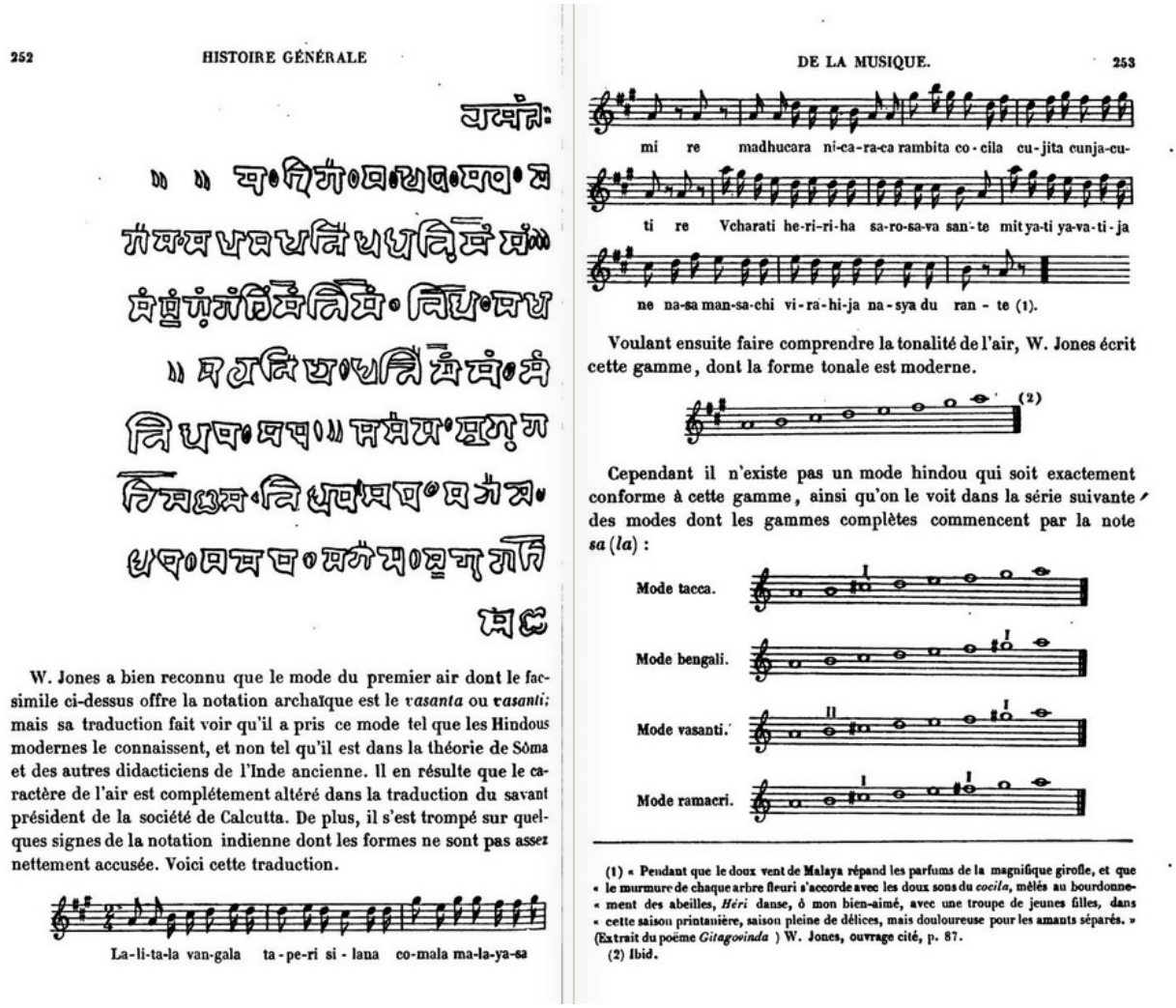


Figure 1.2*b*: Air from the *Rāgavibodha* and Jones's transcription in Western notation, recopied by Fétis (*Histoire générale*, II, 252–3)

Il m'a paru qu'une transcription de l'air en caractères sanscrits ordinaires était nécessaire, pour qu'on pût la comparer avec la traduction que j'en ai faite dans le mode *vasanti*, ainsi qu'avec le fac-simile ci-joint de l'original. Voici cette transcription :

(1) Cette lettre ङ n'est pas connue dans la notation des degrés de la gamme ; elle représente donc une note appartenant à un son en dehors des limites de l'octave. Il m'a paru que le *si* était la meilleure note pour la mélodie ; mais ce n'est qu'une simple conjecture.

(2) Les signes accessoires, indiquant des altérations de notes et des ornements du chant, n'existant pas dans la série des caractères typographiques sanscrits, les lecteurs ne pourront les vérifier que sur les fac-simile.

Figure 1.2*c*: Fétis's emended retranscription of Jones's reproduced Sanskrit notation (*Histoire générale*, II, 255)

Traduction en notation européenne.

Mode vasanti.

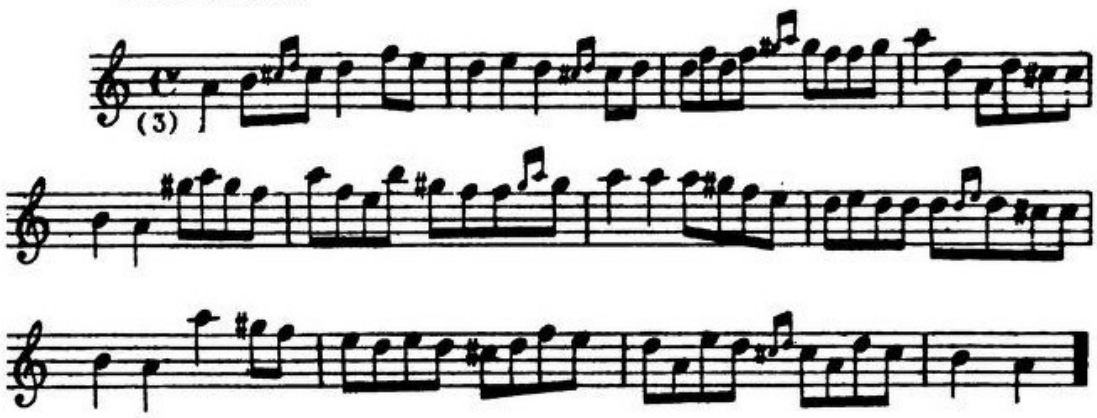


Figure 1.2*d*: Air from the *Rāgavibodha* transcribed by Jones, reconceived by Fétis (*Histoire générale*, II, 256). Compare to Jones's transcription, Fig. 1.2*b*.

Yet in formulating his corrective to Jones's transcription, Fétis betrays a conflict between philological and musical impulses. With a philological hand, he disparagingly accuses Jones of being influenced by performance practice instead of music theory, comparing Jones's air to the table of Indian modes and finding no direct match. With a musical hand, he takes certain musical liberties in his own transcription, judging certain diacritical markings to indicate various sorts of ornamentation. When Fétis finds himself caught in a philological quandary, his recourse is to his musical instincts. Having encountered a letter in the facsimile that he interprets as '*ḍa*' and thus not one of the syllables associated with the Indian *sargam* solmisation, Fétis justifies his decision by appealing to his own musical sensibility: 'It seemed to me that the B was the best note for the melody'.[37]

Whether Fétis or Jones is more 'right' or 'wrong' in this translation exercise is not for me to determine. The key point here is that knowledge, scholarship, and ultimately music took shape in the friction of the meeting of philological means and musical impulses. Fétis, who possesses musical credentials, attempts to reconcile his own training with standard-bearing scientific methodologies. While he goes to great lengths to affiliate the *Histoire générale* with the methods and figureheads of comparative philology, he concludes that only a '*musician* entirely versed in art and science' could ultimately gain an understanding of the 'true state' of Indian music.[38] It is with similar disdain that Fétis dismisses the musicological work of other philologists like Vincent – whom he deemed to 'have no musical sense whatsoever'.[39] The tug-of-war between philological rigour and musical sensibility will continue to cause friction throughout the interdisciplinary encounters discussed in this study.

In summary, Fétis's engagement of comparative philology is better understood as an appropriation of its disciplinary authority and preliminary conclusions than as a cogent implementation of its techniques. Fétis sculpted a history of music that accorded with narratives of linguistic and ethnic development propounded by philologists, positing a musicology which reflected philological findings rather than one which was rooted in

[37] Ibid., II, 255n1; 'Il m'a paru que le *si* était la meilleure note pour la mélodie'
[38] Ibid., II, 265; 'pour établir d'une manière certaine l'état veritable de la musique indienne… il faudrait… un musician possédant une connaissance complete de l'art et de la science…'
[39] Quoted in Christensen, *Stories of Tonality*, 308n56. Attacking philologists' lack of 'musical' instincts or sensibilities was a familiar critical technique among early 'musicologists'; in 1858, German musicologist Moritz Hauptmann similarly lamented about the state of scholarship on ancient Greek music, 'which we only know about through the completely unmusical philologists; i.e., do not know about at all' (quoted in Rehding, 'Wax Cylinder Revolutions', 123).

philological methods. He echoed musical analogues to many of the most pernicious essentialisms that emerged in the wake of philology's expansion, relating for example the notion of semitic 'stasis' versus aryan 'adaptation' to constructions of musicological 'transformation and progress'.[40] Ultimately, by relying on his musical instincts as his final recourse, Fétis ended up revealing (despite himself) an irreducible discontinuity between the promise of philology and the practice of musicology. There is a certain inevitability about this fate. Comparative philology was designed through the study of languages – a relatively narrow band of languages, at that – and the failure of its application to other realms of knowledge may seem unsurprising. Yet the formidable potential of comparative linguistics, and the ongoing, asymptotic rapprochement of language and music, meant that musicologists continued to grapple with the role of philology for generations to come.

Gevaert: a more cautious approach?

Gevaert's interest in early music was apparently stirred by the work of Belgian philologist, Auguste Wagener (1829–96).[41] Wagener had stepped onto the musicological scene in the early 1860s to intervene on the side of Vincent, and thus opposite Fétis, regarding the possibility of ancient Greek harmony. He framed his *Mémoire sur la symphonie des anciens* (1863) as a critique of Fétis's own *Mémoire sur l'harmonie simultanée des sons chez les grecs et les romains* (1859), opening with a plea that Fétis not, as Wagener feared he might, 'file him straight away in the category of *philologists*, for whom, regarding musical questions, he does not appear to have much esteem'.[42] (Fétis retaliated in the *Histoire générale* by describing Wagener as 'possessing the art of denaturing things and the meaning of words'.[43])

Wagener had also contributed to broader studies of Indo-Europeanism with his *Essai sur les rapports qui existent entre les apologues de l'Inde et les apologues de la Grèce* (1853), in which he sought to demonstrate the relationship between Greek and Indian fables. His introduction to the study gives a flavour of his measured enthusiasm for philology. He cautioned against the fast-and-loose Indianist fervour following Jones's hypothesis –

[40] Fétis, *Histoire générale*, II, 189–90.
[41] Thomas, *Notice sur la vie et les travaux de Auguste Wagener,* 40.
[42] Wagener, *Mémoire sur la symphonie des anciens*, 4; 'Je crains bien que, malgré cette déclaration, M. Fétis, dont j'aurai à combattre les conclusions, ne me range tout d'abord dans la catégorie des *philologues* à l'égard desquels, en fait de questions musicales, il ne paraît professer qu'une médiocre estime.'
[43] Fetis, *Histoire générale*, III, 333n1; 'M. Wagener, qui possède l'art de dénaturer les choses et la signification des mots…'

according to which 'mythology, philosophy, literature, mathematics and music, that is, everything that constitutes a people's intellectual life, had been, people said, borrowed by the Greeks from the Indians' – arguing instead for cooler heads and an 'impartial and conscientious study' of the 'true' relations between Greece and 'the Orient'.[44]

If Wagener was indeed the conduit leading Gevaert to the study of ancient music, then it makes sense that the latter's stances, both with regard to specific issues in ancient Greek musicology and to broader issues of musical Indo-Europeanism, came to contrast with Fétis's. Gevaert began exploring ancient music in the late 1860s, and by 1868 had sketched in a series of articles his own lofty narrative of music history, itself a familiar historiographical trope: that it is possible to trace a continuous lineage from the music of ancient Greece, through the chant of the medieval church, to the music of modern Europe.[45] By the time the first volume of his *Histoire et théorie de la musique de l'antiquité* was published in 1875, Gevaert characterised Wagener as an old friend, and highlighted the philologist's valuable role in shaping his work.[46] Later in his career, Gevaert would complete and publish Wagener's translations of Aristotle's *Problemata* relating to music.[47]

With this context in mind, we are equipped to make sense of the opening pages of Gevaert's *Histoire et théorie*, in which he tackles, and dismisses, the question of 'Indo-European music'. The passage is worth quoting at length:

> The new sciences of our time, which have transformed the history of religion, of mythology, of race and of language – ethnology and comparative philology – offer only a negative service to art historians: they prevent them from straying into a realm where there is nothing for them to glean.
>
> Because art is not, like language and religions, the necessary and immediate product of the genius of each people; it often transplants itself from one country to another[. …] One might be tempted to make an exception for music. All poetry, after all, was originally sung. But this primitive song was but an accentuation of the word, more solemn, more varied than that of ordinary speech and, in any case, inseparable

[44] Wagener, *Essai sur les rapports…*, 3; 'Mythologie, philosophie, littérature, mathématiques et musique, enfin tout ce qui constitue la vie intellectuelle d'un peuple, avait été, disait-on, emprunté par les Hellènes aux Indiens'; 'une étude impartiale et consciencieuse'.
[45] See Gevaert, 'Les origines de la tonalité moderne'.
[46] Gevaert, *Histoire et théorie de la musique de l'antiquité*, I, xiv.
[47] Gevaert and Johann Christoph Vollgraff, *Les Problèmes musicaux d'Aristote* (Ghent: Hoste, 1903)

from the word. Yet, this rudimentary form of melody, of no interest to the history of art, lasted many centuries. We shall give irrefutable proof of this.

The primitive vocabulary of Indo-European languages, reconstructed by modern linguistics, to which we owe such precious insights into the beliefs, habits and civilisation of our racial ancestors, contains no verb, no noun, bearing any relation to music. Singing itself, taken in its strictest meaning, i.e. the action of emitting musical sounds through the human voice, has no special term in the aryan language. It is expressed in diverse families of languages by secondary verbal roots, sometimes differing from one dialect to another, and of which the original meaning is *make noise*, *celebrate*, *speak* (KAN, *can-ere*, *can-tare*; VAD, ἀ-Fειδω, SAK, *sag-an*, *sang*, *sin-gan*). But there is more. Greek and Latin, the separation of which took place relatively recently and which kept so many common elements in their vocabulary, provide here no plausible analogy.[48] If we exempt borrowings made by one and the other in the historic era, we do not find any musical term common to the two languages, no instrument name that we could identify.

There can be no question therefore of an aryan or even greco-latin music, nor, probably, of a semitic music.[49]

Gevaert's chosen framing device for his study of ancient Greek music – raising the question of musical Indo-Europeanism, only to dispense with it – would seem arcane and irrelevant if

[48] Here Gevaert cites August Fick's comparative dictionary of Indo-European languages, *Vergleichendes Wörterbuch der indogermanischen Sprachen* (1870), in which the German philologist sought to induce a proto-Indo-European lexicon.

[49] Gevaert, *Histoire et théorie de la musique de l'antiquité*, I, 2–3; 'Les sciences nouvelles qui, de notre temps, ont transformé l'histoire des religions, des mythologies, des races et des langues, – l'ethnologie et la philologie comparées – ne rendent à l'historien de l'art qu'un service négatif : c'est de l'empêcher de s'égarer sur un terrain où il n'y a rien à glaner pour lui. C'est que l'art n'est pas, comme la langue et la religion, le produit nécessaire et immédiat du génie de chaque peuple; il se transplante souvent d'un pays à l'autre[. …] On serait tenté de faire une exception pour la musique. Toute poésie, en effet, fut chantée à l'origine. Mais ce chant primitif n'était qu'une accentuation de la parole, plus solennelle, plus variée que celle du langage ordinaire et, de toute manière, inséparable du mot. Or, cette forme rudimentaire de la mélodie, sans intérêt pour l'histoire de l'art, a duré pendant un long espace de siècles. Nous allons en donner la preuve irrécusable. Le vocabulaire primitif des langues indo-européennes, reconstruit par la linguistique moderne, auquel nous devons des notions si précieuses sur les croyances, les mœurs et la civilisation des ancêtres de notre race, ne renferme aucun verbe, aucun substantif, ayant quelque rapport à la musique. Le chant lui-même, pris dans son acception la plus stricte, c'est-à-dire l'action d'émettre des sons musicaux par la voix humaine, n'a pas de vocable spécial dans la langue aryaque. Il s'exprime dans les diverses familles de langues par des racines verbales secondaires, différentes parfois d'un dialecte à l'autre, et dont le sens originaire est *faire du bruit*, *célébrer*, *parler*, (KAN, *can-ere*, *can-tare*; VAD, ἀ-Fείδω, SAK, *sag-an*, *sang*, *sin-gan*). Mais il y a plus. Le grec et le latin, dont la séparation s'est effectuée à une époque relativement récente et qui ont gardé dans leur vocabulaire tant d'éléments communs, n'offrent ici aucune analogie saisissable. Si l'on excepte les emprunts faits de part et d'autre depuis les temps historiques, nous ne trouvons dans les deux idiomes aucun terme musical, aucun nom d'instrument que l'on puisse identifier. Il ne saurait dès lors être question d'une musique aryenne ou même gréco-latine, pas davantage, probablement, d'une musique sémitique.'

we were unaware of the broader philological contexts – that is, the salience of the Indo-European question as an undercurrent of nineteenth-century Hellenism – and, more specifically, the networks and dialogues in which Gevaert (and Fétis) were participating.

The passage is remarkable for several reasons. Like Wagener, Gevaert embraces the comparative method and its conclusions with moderation, accepting its potential to inform the study of human languages, religions, mythologies, and 'races' – all while denying its applicability to 'art' or music. His reasoning is twofold. First, he appeals to common sense – swimming against the dominant post-Herderian stream of so much Romantic scholarship likening musical expression to *Volksgeist* – with the observation that music can be 'transplanted' or transmitted independently of musicians or nationhood. However, Gevaert's second line of reasoning is even more noteworthy. Regarding the question of music particular to a given 'race', he applies the technique of 'linguistic palaeontology' – a sophisticated philological technique developed by the Swiss linguist (and, incidentally, close friend of Liszt's) Adolphe Pictet* in 1859.[50] According to this method, if lexemes are related among some or all of the ancient Indo-European languages, then one can infer something about the lifestyle of their ancient speakers; Pictet could thereby posit, for instance, that the 'ancient Aryas' likely drank mead, and not beer. By suggesting that there are no common lexemes denoting 'music' among the ancient Indo-European languages, Gevaert refuted the possibility of a common or essential 'proto-Indo-European' music. With this rhetorical act, Gevaert turned Fétis's relationship with philology on its head: while Fétis tried to apply philological techniques to musical objects directly, albeit in a sporadic and inconsistent manner, Gevaert used a cutting-edge linguistic methodology, applied more appropriately to language, to forestall the appropriation of philological conclusions with respect to music. From a modern linguistic standpoint, Pictet's 'palaeontology', and therefore Gevaert's reasoning, are themselves deeply flawed.[51] Yet against the backdrop of Fétis's scattershot approach to comparative philology, one may nevertheless relish the elegance, and devastating impact, of Gevaert's opening salvo – even as he resisted addressing his target by name.

[50] Pictet, *Les origines indo-européennes, ou Les Aryas primitifs*.
[51] On the dubious logic of 'linguistic paleontology', see, e.g., Hock and Joseph, *Language History, Language Change, and Language Relationship*, ch. 18. Salomon Reinach* already challenged the technique in 1892 (*L'Origine des Aryens*, 54).

Having raised, and laid to rest (to his satisfaction), the question of musical Indo-Europeanism, Gevaert does not return to the issue for the rest of the volume. However, in his dismissal Gevaert does not go as far as he might have. For one, even in carving an exception for music, he largely accepts the prevailing intellectual consensus of his day concerning the relationship between language, religion, culture, and 'race'. Moreover, in the second volume of his study, published six years after the first, Gevaert alights at various moments – albeit briefly and conjecturally – on the possibility of essential Indo-European musical qualities. For example, he suggests a comparison between the ways Indian, Greek, and Roman melodies are 'composed' from standard 'formulas' (variations of what has since been termed, 'centonisation'), comparing the '*nomos* of Greek citharodes and aulodes' to 'the *sâman* of Vedic cantors', 'the *râga* of modern Hindus', and 'the *neume* of western ecclesiastical musicians' – a comparison to which he would return over a decade later in *La Mélopée antique*.[52] The juxtaposition of these melodic techniques is suggestive, even if Gevaert stops short of alleging any genetic filiation.

The case is different with Gevaert's discussion of rhythm and metre – the subject of much of his second volume. The most telling moment occurs in Gevaert's discussion of the poet Archilochus, whom he credits as a true innovator, 'among those rare men who opened their art to new paths'.[53] Archilochus's primary innovation was rhythmic: according to Gevaert, he was responsible for introducing ternary rhythms into Greek music. The mere mention of these metres leads Gevaert into a tangential conjecture:

> *The 3/8 (as well as its derivatives, 6/8, 9/8, and 12/8) appears to belong to the Indo-European race itself, and in particular to its southerly branches.* We know that the hymns of the Veda have only the iamb and the trochee; those, too, were the true popular rhythms of the Greco-Latin family, as they still are today in the Romance nations (Italian, French, Spanish, Portuguese). Nothing analogous is to be found among the other races of the old world. Among all the melodies of the Far East that have passed through my hands (Japanese, Chinese, Malay, etc.), I have found nothing in them that could be attributed to the 3/8 family. Moreover, this type of bar is exceedingly rare in the music of Semitic, Tartar, or Finnish peoples. Finally, it is

[52] Gevaert, *Histoire et théorie*, II, 316; *La mélopée antique*, 123–4; 'Le *nomos* des citharèdes et des aulodes grecs, semblable au *sâman* des chantres du Véda, au *râga* des Indous modernes et au *neume* des musiciens ecclésiastiques de l'Occident...'. My attention was drawn to these two moments via Leo Treitler's article, '"Centonate" Chant: "Übles Flickwerk" or "E Pluribus Unus?"', 6.
[53] Gevaert, *Histoire et théorie*, II, 332; '…un de ces hommes rares qui ouvrent à leur arts des voies nouvelles...'

> noteworthy that it has disappeared, for the most part, among those Indo-European nations which have undergone a strong influence from other races, due to conquest or long cohabitation (Hindus, Persians, modern Greeks). If, as I have reason to believe, the fact which I have just indicated should be confirmed by independent research, one would have to conclude that rhythm is a more persistent element of the songs of various peoples than melodic forms, and that it pushes its roots through to the deepest level of national sentiment.[54]

Furthermore, a few pages later, Gevaert observes that 'the only modern people for whom quinary rhythm exists in a spontaneous state (Basques, Finns, and Turks) do not belong to the Indo-European race'.[55] In these two passages Gevaert appears to hypothesise in no uncertain terms exactly that which he had denied in his opening to the 1875 volume – an essential relationship between music and 'race'.

How can we reconcile Gevaert's conjectures regarding rhythm's racial inheritance with the circumspection toward musical Indo-Europeanism expressed previously? One possible explanation lies in the relationship between metre and poetry, independent of any broader notion of 'music'. In developing his beliefs on metre, Gevaert largely followed the work of the German philologist Rudolf Westphal*, who had published several volumes on ancient Greek metrics (as well as a more mainstream grammar of Indo-European languages) over the 1860s and 70s. Westphal's studies of metre were premised on the notion that the poetry of various Indo-European branches could be compared, and that the metrical structures of various 'Indo-European' poetic cultures could yield insights into the history of Greek metre. If Gevaert was unwilling to accept the hypothesis of an essential Indo-European music writ

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[54] Ibid., II, 332–3; '*Le 3/8 (avec ses dérivés le 6/8, le 9/8 et le 12/8) semble appartenir en propre à la race indo-européenne et particulièrement à ses ramifications les plus méridionales.* On sait que les hymnes du Véda ne connaissent d'autres mètres que l'iambe et le trochée; ce furent là aussi les véritables rhythmes [sic] populaires de la famille gréco-latine, comme ils le sont encore aujourd'hui des nations romanes (Italiens, Français, Espagnols, Portugais). Rien d'analogue ne se remarque chez les autres races de l'ancien continent. Parmi toutes les mélodies de l'extrême Orient qui me sont tombées sous la main (japonaises, chinoises, malaises, etc.), je n'en ai trouvé aucune qui puisse être attribuée à la famille du 3/8. D'autre part ce genre de mesure se montre avec une rareté excessive dans la musique des peuples de souche sémitique, tartare ou finnoise. Enfin il est à remarquer qu'il a disparu, ou peu s'en faut, chez les nations indo-européennes qui ont subi dans une forte mesure l'influence d'autres races, par l'effet d'une conquête ou d'une longue cohabitation (Indous, Persans, Grecs modernes). Si, comme j'ai lieu de le croire, le fait que je viens d'indiquer brièvement se confirme par des recherches ultérieures, il faudra en conclure que le rhythme est un élément plus persistant dans les chants des divers peuples que les formes mélodiques, et qu'il pousse ses racines jusqu'au plus profond du sentiment national' [Gevaert's emphasis].

[55] Ibid., II, 344n2; 'Une observation assez intéressante, c'est que les peuples modernes chez lesquels le rhythme quinaire existe à l'état spontané (les Basques, les Finnois et les Turcs) n'appartiennent pas à la race indo-européenne.'

large, he was certainly eager to seize upon the somewhat narrower scope of Westphal's thesis, perhaps considering that poetry occupied a liminal zone between language and music.

Another, related, explanation lies in Gevaert's belief in rhythm's specifically embodied nature. Gevaert opens the second volume of *Histoire et théorie* with an explanation of how 'the essential laws of rhythm, independent of music and intrinsic to the human mind, are found among all peoples having attained a certain degree of culture' – an observation which deserves recognition as 'one of the most important facts for anthropological science'.[56] He admits that these laws assume 'different characteristics from one race to the next', citing, for instance, how the Jewish people ('so admirably gifted in music') never subjected their verses to the sorts of rhythmic patterns 'already' present in the oldest Greek lyric arts.[57] Rhythm, Gevaert asserts, is fundamentally 'physiological' – hence his appeal to anthropology, not philology – and without positing specifics, Gevaert ventured that the relationship between a people and its rhythms could have ramifications for the melody, as well.

Conclusion.

Gevaert's approach to comparative philology in musicology, and Indo-Europeanism in music, provides obvious contrasts with that of Fétis. Rather than the structural model for the study of music proposed by Fétis, Indo-Europeanist philology remained peripheral to Gevaert's focus on ancient Greek music, glinting only in fleeting and restrained contexts. Instead of a narrative of music history that closely paralleled philological constructions of linguistic development, Gevaert sought to invoke philology on its own terms. When he received criticism from more formally trained hellenists like Théodore Reinach* and Louis Laloy*, it was framed within the context of admiration for his achievements.[58] Yet even as Gevaert led the pack of musicologists who would distance themselves from Fétis's incautious scholarship in the coming generations, Gevaert imposed assumptions of his own regarding the role of 'race' in the development of musical culture.

[56] Gevaert, *Histoire et théorie*, II, 4; 'Les lois essentielles du rhythme [sic], étant indépendantes de la matière musicale et inhérentes à l'esprit humain, se retrouvent chez tous les peuples arrivés à un certain degré de culture… C'est là un fait des plus importants pour la science anthropologique…'
[57] Ibid., II, 3; 'Le peuple juif, de tout temps si admirablement doué pour la musique, ne semble pas avoir assujetti ses chants nationaux et religieux...à cette régularité rhythmique qui caractérise déjà les plus anciens produits de la lyrique grecque.'
[58] Corbier, 'François-Auguste Gevaert et Maurice Emmanuel', 106–7.

In redirecting the search for Indo-Europeanism in music to the domain of rhythm and metre, Gevaert foreshadowed a direction of travel which would be pursued by future musicologists inclined toward philology, such as Pierre Aubry and Maurice Emmanuel.[59] However, while Gevaert conceived of metre as an irreducible physiological attribute, an epiphenomenon of 'race', future scholars would frame metre as an epiphenomenon of language itself, seeking (at least rhetorically) to distance themselves from questions of 'race' entirely. Before pursuing this shift toward language and metre, which will be revisited in Chapter 3, I turn to another roughly contemporaneous musico-philological endeavour involving Gevaert's peer, Louis-Albert Bourgault-Ducoudray. While Gevaert's interest in musical classicism was, to an extent, motivated by his desire for its renaissance, arguably no individual did more than Bourgault to realise this vision in French music.

[59] Gevaert was not the only musicologist to refute Fétis's sweeping assimilation of music and 'race'. Another noteworthy (later) example is Félix Clément, whose own *Histoire générale de la musique* (1885), destined for a broader and less scholarly public, responded to Fétis's *Histoire* more explicitly than Gevaert did. Clément had little use for comparative philology or other sciences, and his refutation of philology deserves further exploration elsewhere. He writes in his opening pages, 'I do not believe it necessary to engage the reader in anthropological and ethnological theories, where, it seems to me, Fétis lost himself' ('je ne crois pas qu'il soit nécessaire d'entraîner le lecteur dans des théories anthropologiques et ethnologiques; il me semble que Fétis s'y est égaré') (3). In a discussion of alphabets and scales, he disclaims, 'I am not doing comparative grammar' ('Je ne fais pas ici de grammaire comparée') (10) – offering further evidence, through negation, of how comparative philology was a default frame of reference. Responding to 'plusieurs savants' who 'made to attribute [the origins of the scale] to the aryan race' ('ont prétendu l'attribuer [l'origine de la gamme] à la race aryenne'), Clément found an Arab melody which could, too, be analysed in the dorian mode (10–12) (although unnamed, he was plainly responding to Bourgault-Ducoudray and Émile Burnouf, the subjects of Chapter 2, as well as to Fétis). In Clément's view, musical faculties were universal and equal, and musical difference the result of 'civilisation'; like Gevaert, Clément did not dispute 'race' as biological fact, only its relevance for music studies.

CHAPTER 2

LOUIS-ALBERT BOURGAULT-DUCOUDRAY AND HIS INTERLOCUTORS

Louis-Albert Bourgault-Ducoudray (1840–1910) had utopian visions for French music. These visions were articulated socially and aesthetically, in many overlapping spheres of French musical life: in the social agendas of his ambitious choral society and his proposed educational initiatives, or in his aesthetic programme for what Panos Vlagopoulos has aptly called a 'panmodalist Aryan music of the future'.[1] In the estimation of Michel-Dimitri Calvocoressi, writing in 1933, Bourgault paved the way for 'nearly everything that took place in [French] music until 1914'.[2] Because of his pivotal role in mediating between philological research and compositional practice, Bourgault is a recurring figure throughout this thesis: in this chapter, I discuss how Bourgault's musicological beliefs, priorities, and techniques were shaped through philological peers and methods. Then, in Part II, I examine how Bourgault transformed these theories into compositional realities, both in his own work and in that of his peers and students.

Bourgault's scholarship, unlike that of Fétis and Gevaert, involved fieldwork and song collection, notably in Greece and Brittany. This may partly explain why Bourgault spoke of his scholarly practice metaphorically as 'archéologie musicale' (in contrast to 'philologie'), appropriating the term from mid-nineteenth-century studies of medieval chant.[3] Yet his theoretical approach reveals an ingrained philological logic – in its textuality (via transcription of folksongs or translation of old ecclesiastical sources and notations), its search

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[1] Vlagopoulos, '"The Patrimony of Our Race"', 59. With the exceptions of a Nantais brochure published pseudonymously during his lifetime by Gringoire (whom Elaine Brody and John Wagstaff posit may be a 'M. Lemée'; 'Louis-Albert Bourgault-Ducoudray', *New Grove Opera*, 574) and Bruno Bossis's master's thesis ('Bourgault-Ducoudray: L'homme et l'oeuvre, une première approche'), consolidated biographical sources on Bourgault-Ducoudray are scarce. However, his various pursuits have been studied independently by several scholars: for example, on his choral society and choral activism, see Ellis, 'A Tale of Two Societies' and Lespinard, *Les Passions du chœur*, 503–24; on his accession to the professorship of music history at the Conservatoire, see Campos, '"Mens sana in corpore sano"'; on the courses he taught there, see Mordey, 'Ideologies in Music History'; on his important role in promoting Russian (especially kuchkist) music in France, see Groote, *Östliche Ouvertüren*, 238–58.

[2] Calvocoressi, *Musicians Gallery*, 137.

[3] For a discussion of the term 'archéologie musicale', see Haines, 'Généalogies musicologiques', 24–9. Initially associated with the study of plainchant and medieval manuscripts, the term took on broader associations with the study of music history and even the performance of early music more broadly later in the nineteenth century (Fauser, 'Archéologue malgré lui', 123). Sophie-Anne Leterrier also surveys a range of nineteenth-century proto-musicological practices considered under the term 'archéologie musicale', although without an explicit discussion of the term's development ('L'archéologie musicale au XIXe siècle').

for underlying governing structures (e.g., modes and metres), and most important, its comparison of materials from different sources in the hopes of determining genealogical, namely Indo-European, filiations. Given Bourgault's overriding goal, to effect change in French musical practice through his scholarly activity, it is fitting that in 1878 he become the resident music historian at the Conservatoire de Paris, a position which granted him scientific authority while also placing him in a position to propagate his theories to future generations of composers.[4] This chapter traces Bourgault's involvement with networks of scholars and philologists – most notably Émile Burnouf, but also Théodore Hersart de La Villemarqué, Gaston Paris*, and Joseph Loth – who shaped his musicological worldview.

Athenian encounters.

Born in Nantes to a well-connected family,[5] Bourgault relocated to Paris where he obtained a *licence* in law[6] and furthered his musical training at the Conservatoire. He entered Ambroise Thomas's composition class in 1859, and won the Prix de Rome three years later (beating his friend Jules Massenet). His stay at the Villa Medici aroused lifelong interests in 'musique ancienne' (especially Palestrina) and 'folk music'. When he settled in Paris in 1868, he became a major player in the Parisian musical scene, founding an important choral society in the belief that the French people could be mobilised and build a national musical culture through the democratising power of choral singing.[7] The intense energy he devoted to conducting and organising, compounded by an injury sustained during the Commune, took a toll on his health, and he travelled to Athens to convalesce in early 1874. On this voyage he heard ecclesiastical and popular Greek musics for the first time, which unleashed a flood of creative and intellectual inspiration.

[4] Although, as Inga Mai Groote has shown, Bourgault was not the first music history professor at the Conservatoire to tout Indo-Europeanism to his students: the archives of his short-term predecessor, Eugène Gautier, reveal that aryanist historiography à la Fétis was already on the curriculum ('Griechische Bretonen?', 13–14).

[5] His uncle, Adolphe Billault, was a minister in the government of Napoléon III. His father, Louis-Henri Ducoudray-Bourgault [sic], was a businessman; for a family tree extending to the 16th century, see Bossis ('Bourgault-Ducoudray: L'homme et l'oeuvre, une première approche', 248).

[6] In the context of this study, it is worth remembering that for this degree Bourgault had to submit a dissertation in Latin, and thus may have had a more thorough background in a classical language than some of his peers at the Conservatoire.

[7] See Ellis, 'A Tale of Two Societies'.

Bourgault arrived in Athens with a letter of introduction allowing him to contact Émile-Louis Burnouf (1821–1906), director of the École française d'Athènes.[8] Under Burnouf's oversight, the ÉfA had transformed from an 'école de perfectionnement' for former normaliens into a scientific and archaeological research centre and locus of French authority in the 'Orient.'[9] Burnouf belonged to a family of esteemed philologists. His great-uncle, the hellenist and latinist Jean-Louis Burnouf (1775–1844), had been professor at the Collège de France, member of the Académie des inscriptions et belles-lettres, and translated between Sanskrit and Latin. His son, Émile's uncle and the most famous of the three, was Eugène Burnouf (1801–52), the most imposing Indologist of nineteenth-century France, known not only for his translations of Sanskrit and Pali, but also for his pedagogy (Renan was among his students) and his popularisation of French interest in Buddhism. Émile, encouraged by his uncle and bearing a reputable surname, was well placed to carry the torch. By the time he was appointed director of the ÉfA, he had authored a Sanskrit textbook, the first Sanskrit-French dictionary, a significant translation of the *Bhagavad Gītā*, and a two-volume history of Greek literature. Pursuing the path of his uncle and of Max Müller, Émile Burnouf expanded his scope of inquiry beyond language to religion, focusing in particular on the roots of Christianity. In his book *La Science des religions* (serialised in the *Revue des deux mondes* over the 1860s, later published in several editions), he sought to demonstrate, through philological methods and a postulate of racial hierarchies bolstered by craniology, how 'Christianity is in its entirety an Aryan doctrine' – a theology and metaphysics sharing 'much more in common with that of Persia and India than with the doctrine of the Semites'[10]; this book has since gained notoriety for containing Burnouf's contention that the swastika was the ancient symbol of the 'aryan race', an allegation which shaped the course of twentieth-century iconography.[11] It is perhaps alarming that the author of such a volume should be so involved in French musical and musicological history (and that this involvement has gone largely unscrutinised in contemporary musicological scholarship); I shall return to Burnouf's own musicological

[8] Bourgault's letter of introduction was written by another hellenist and historian, Eugène Talbot, then-professor at the Lycée Condorcet. In the letter, Talbot describes Bourgault as his 'former student and friend'; I am uncertain as to under what circumstances the two would have entered into this relationship. Talbot's letter is preserved at F-NAbud, fonds Émile Burnouf.
[9] Valenti, *L'école française d'Athènes*, 54.
[10] Burnouf, *La Science des religions*; quoted in Olender, 'Between Sciences of Origins and Religions of the Future', 220; and Peskowitz, 'Religion Posed as a Racial Category', 236. For Burnouf's remarks on 'racial' physiology, see *La Science des religions*, 318.
[11] Burnouf, *La Science des religions*, 256. Burnouf put it most plainly in a letter to archaeologist Heinrich Schliemann: 'La swastika peut donc être regardé comme une signe de la race âryenne. Vous voyez même que les Juifs l'ont complètement rejeté, malgré la profonde influence exercée sur eux lors de captivité de Babylone par les Aryas' (Schliemann, *Briefwechsel*, I, 201–2).

publications toward the end of this chapter. For the moment, the key point to retain in the context of Bourgault's encounter is that Burnouf's investment in ancient and modern Greece must be seen through the lens of his broader aryanism, in which the 'Hellenic races' are considered one of the three 'most brilliant branches of the aryan tree' – and Burnouf was not alone in this regard.[12]

Burnouf, in turn, decisively shaped Bourgault's interpretation of Greek music. The extent of their collaboration can be gleaned not only from Bourgault's expressions of gratitude to Burnouf in his published volumes, but also from the rich correspondence the two maintained over the decades following their 1874 meeting, now collected in Burnouf's professional archives at the library of the Université de Lorraine, Nancy.[13] This correspondence began even before Bourgault returned to Paris from his 1874 voyage, with letters sent along his passage through Italy and Switzerland. It is immediately clear that Burnouf's worldview had provided Bourgault with a creative spark: 'I could ask for nothing better than to compose a piece on this fact which you have proposed to me: the Greeks are our fathers,' Bourgault wrote to Burnouf shortly after arriving back in Paris.[14] Persisting health problems continued to make concertising difficult, and the afterglow of his Greek sojourn occupied his mind: ruminating on the music he heard while in Athens, he felt the seed of a breakthrough. He experimented with melodies he had collected on that first journey, and got a taste of 'the pleasures of folksong arrangement'.[15] As Bourgault recounted, 'I've tried to compose in the Dorian mode and I've searched for novel combinations and associations between the Dorian mode and our major and minor modes. In doing this work, even the little I've done so far, I've felt a fruitful vein worth exploiting: I've done it with ease, with warmth, with joy.'[16]

[12] Burnouf, *Histoire de la littérature grecque*, I, 8; 'Il faut donc regarder les races helléniques comme un des plus brillants rameaux du tronc âryen.' Burnouf uses the preface and introduction of this work to situate the Greeks along a lineage of aryan races with their origins in central Asia (as opposed to Egypt). In this respect he follows (and cites) the German mythologist Karl Otfried Müller, a central figure in the nineteenth-century shift from what Martin Bernal has called the 'Ancient' to the 'Aryan' model of Greek historiography.
[13] F-NAbud, fonds Émile Burnouf, contains over 80 letters from Bourgault to Burnouf between 1874 and 1899.
[14] Letter dated 9/ix/1874, F-NAbud, fonds Émile Burnouf; 'Je ne demanderais pas mieux que de composer un morceau sur la donnée que vous me proposez: les grecs sont nos pères.'
[15] I borrow the apt phrase from Marina Frolova-Walker, *Russian Music and Nationalism*, 251.
[16] Letter dated 9/ix/1874, F-NAbud, fonds Émile Burnouf; 'J'ai essayé aussi de créer dans le mode Dorien et j'ai cherché des combinaisons et des associations nouvelles du mode Dorien et de nos modes majeurs et mineurs. J'ai senti en faisant ces travaux, jusqu'ici de peu d'étendue il est vrai, une veine féconde à exploiter: je les ai faits avec facilité, avec chaleur, avec joie.' On the salience of the dorian mode in particular for nineteenth-century theorists, see Corbier, 'Karl Otfried Müller and Konstantinos Paparrigopoulos: Dorism, Music, and Greek Identity'.

By September 1874, Bourgault had hatched a plan to give up his society and organise a second visit to Athens for further research. He outlined his ambitions to Burnouf in a lengthy letter:

> I've just made a decision: to return to Athens this winter….
>
> After the concerts I've been organising and the society that I founded, what interests me most is the research whose importance and scope I glimpsed during the month I spent at the school in Athens. I could only pursue this research fruitfully by being there, on site…
>
> The aim of the research I'm going to do there is certainly scientific from one point of view, but it is much more artistic. Let me explain. Obviously I cannot devote myself to studying Greek plainchant, to studying and reflecting on the ancient modes, to listening and notating popular songs, without gathering by doing so materials useful for solving an important scientific problem. But for me those jobs are the means and not the end. I glimpse in the modes practiced in antiquity, and still used today (whatever alterations they may have undergone) either in ecclesiastical chant or in popular songs, I glimpse in those modes a powerful expressive means for a composer-creator. It's in the hope of someday managing to enrich the musical language for myself and for others that I am prepared to dedicate several years of my life to this research.[17]

Bourgault negotiated the balance between science and artistry throughout his career, and his eye for 'innovation' is a major theme to which I shall return in greater depth in later chapters. Bourgault's commitment to artistry as the primary 'end' of his research remained unwavering as the conclusions he drew from his analysis of Greek, and later Breton, music became pillars of his compositional practice. Yet while Bourgault's ambitions remained creative, he legitimated his creative experimentation through extended engagements with and appeals to philological authority.

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[17] Letter dated 9/ix/1874, F-NAbud, fonds Émile Burnouf. '….une détermination que je viens de prendre: c'est de retourner à Athènes cet hiver…. Après les concerts que j'organisais et la société que j'ai fondée, ce qui m'intéresse le plus ce sont les études dont j'ai entrevu l'importance et la portée pendant le mois que j'ai passé à l'école d'Athènes. Ces études je ne puis les poursuivre fructueusement que sur les lieux.…Le but des études que je vais y faire est bien scientifique à un certain point de vue, mais il est beaucoup plus artistique. Je m'explique. Evidemment je ne puis pas m'adonner à l'étude du plain chant grec, étudier et réfléchir sur les anciens modes, écouter et noter les mélodies populaires sans rassembler par là même des matériaux utiles à la solution d'un important problème scientifique. Mais pour moi ces travaux sont le moyen et non le but. J'entrevois dans les modes pratiqués dans l'antiquité, et encore usités (quelqu'altération qu'ils aient pu subir) soit dans le chant ecclésiastique, soit dans les mélodies populaires, j'entrevois dans ces modes de puissants moyens d'expression pour un compositeur-producteur. C'est dans l'espérance d'arriver à enrichir un jour la langue musicale pour moi et pour les autres que je compte vouer plusieurs années de ma vie à cette étude.'

Having proposed this plan to Burnouf, Bourgault set the wheels in motion for an imminent departure, seeking an official 'mission' from the ministry (only the title; Bourgault paid his own way).[18] He educated himself on various musical and scientific matters deemed fundamental to the study he aimed to undertake in Greece. 'I have nearly everything to learn,' he wrote to Burnouf, enumerating a reading list which included books by Villoteau (on Egyptian music), Vincent (on Greek music), Helmholtz (on acoustics), and Fétis (the *Histoire générale*), and he arranged meetings with important experts like Charles-Émile Ruelle* – a hellenist and student of Vincent who, as Bourgault lamented à la Fétis, 'was unfortunately not a musician'.[19] (Gevaert's *Histoire et théorie* was only published after Bourgault had returned from his 1875 mission.[20]) Not least, Bourgault read Burnouf's *Science des religions* with great interest.[21] Moreover, he confessed to Burnouf: 'I'll also have to go back over Gregorian plainchant; as I'll have to be able to compare this western derivation to the eastern derivation'.[22] Accordingly, he sought out the scholarship of Joseph d'Ortigue, and arranged meetings with Stéphen Morelot, a Dijon-based chant expert. It is significant that both d'Ortigue and Morelot had published methods for the accompaniment of plainchant arguing that the modal constitution of the chant should be respected in the accompaniment.[23] Bourgault would later adapt this principle from the realm of plainchant to the accompaniment of Greek songs, and would vigorously advocate modal harmonisation throughout composition more generally. Finally, during this period, Bourgault also sought to broker arrangements with Parisian instrument-makers to produce specialised quarter-tone instruments for the ÉfA to facilitate research on Greek music.[24] The connection to Wolff is potentially salient: Wolff

[18] There seems to be a tradition of artists requesting 'missions' from the Ministre des Beaux-Arts, but financing themselves. Albert Lavignac did the same in order to travel to Tunisia in 1887, as did Paul Gauguin for his travels in Tahiti in 1891. See F-Pan, F[21] 2286.
[19] Letters dated 29/xi/1874, 17/xii/1874, F-NAbud, fonds Émile Burnouf; 'J'ai presque tout à apprendre'; 'Malheureusement il n'est pas musicien.' Ruelle's scholarship on Greek music was based entirely on ancient texts and manuscripts.
[20] As might be expected, however, Bourgault read Gevaert's publication at his earliest opportunity; as he wrote to Burnouf, 'J'ai lu à peu près en entier le livre de Gevaert. Il est ce que j'attendais, c.à.d. très remarquable' (letter dated 16/vi/1875, F-NAbud, fonds Émile Burnouf).
[21] Letter dated 9/ix/1874, F-NAbud, fonds Émile Burnouf; 'Je viens de lire avec avidité votre Histoire des religions [sic]. Je comprends le succès qu'elle a obtenu. Il est impossible de traiter plus lucidement des questions plus élevées. J'ai été particulièrement frappé de vos 2 chapitres sur les orthodoxies.'
[22] Ibid.; 'Il va falloir aussi que je me remette au plain chant grégorien; car il faut pouvoir comparer ce dérivé occidental au dérivé oriental.'
[23] Niedermeyer and d'Ortigue, *Traité théorique et pratique de l'accompagnement du plain-chant* (1858); and Morelot, *Eléments d'harmonie appliquée à l'accompagnement du plain-chant* (1861); on this link, see also Kakouri, 'L'harmonisation des chansons populaires grecques', 24.
[24] Auguste Wolff (of Pleyel) and Édouard Alexandre were amenable to creating a piano and harmonium; Aristide Cavaillé-Coll, the organ-maker, demurred. The extent to which the production of these instruments was

had already proven himself a supporter of research on ancient Greek music by hosting lectures by Gevaert in his Parisian salon.[25]

Bourgault's mission in Athens, which lasted from January to May 1875 and included an excursion to Smyrna and Constantinople, is documented in *Souvenirs d'une mission musicale en Grèce et en Orient*, one of three books he published upon returning to Paris. Of the other two, one is devoted to the sacred music of the Greek Orthodox church (*Études sur la musique ecclésiastique grecque*), and the other is a collection and study of thirty popular songs which he transcribed and arranged (*Trente mélodies populaires de Grèce et d'Orient*), fondly dedicated to Burnouf. While the more rarefied *Études*, which Burnouf had a hand in editing (Fig. 2.1), would become a valued resource among philologically inclined scholars of comparative chant (such as Pierre Aubry), the folksong collection became an enduring success among a broader audience: it was reprinted several times in the decades following its publication, to acclaim from composers, performers, and musicologists alike.

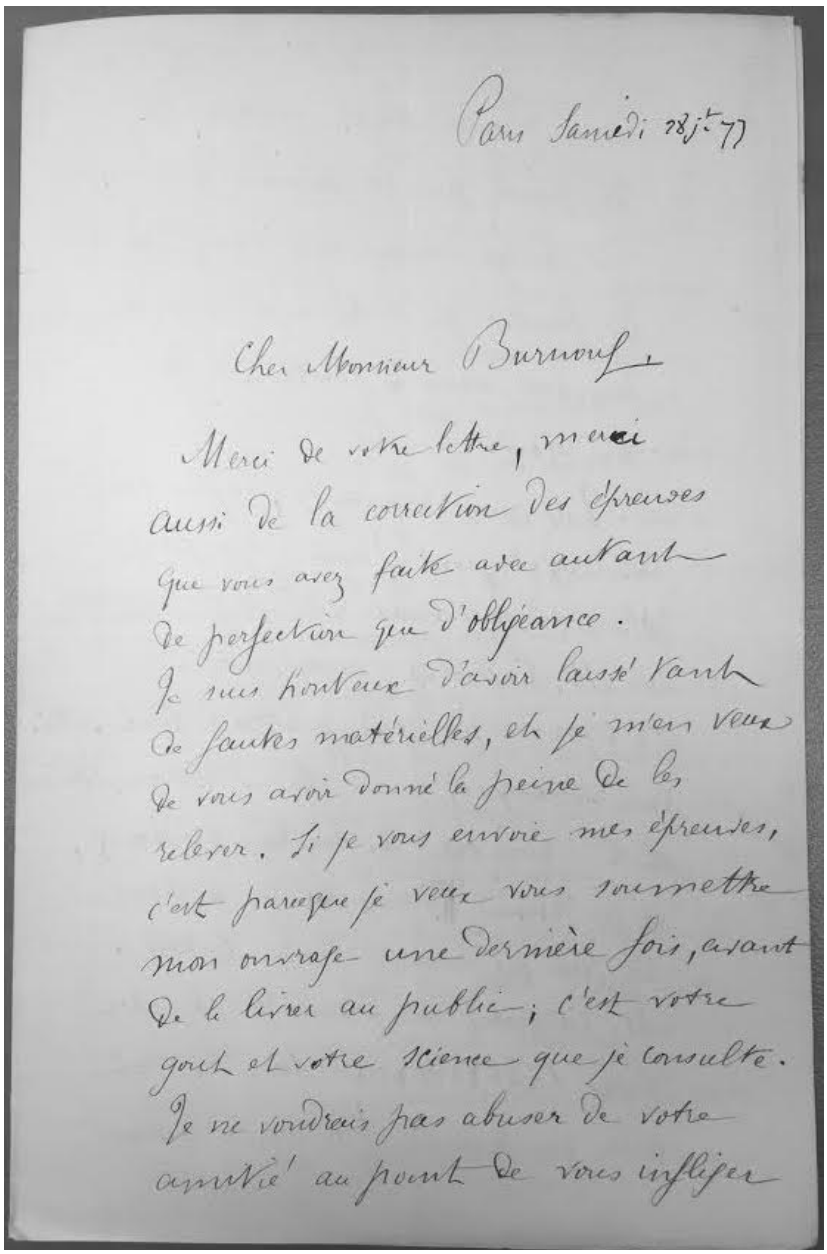
In many ways, *Trente mélodies populaires de Grèce et d'Orient* set a new standard for what a folksong anthology could accomplish, both philologically and compositionally. As folksong became increasingly viewed as an expression of the *génie populaire* and a dimension of culture that could be preserved and studied, folksong collection and conservation was put forth as a priority.[26] This might have been exemplified by the projected nationwide 'Recueil des poésies populaires de la France', organised in 1852 by Hippolyte Fortoul on behalf of Napoléon III; however, the value of such a project never achieved consensus, and it was eventually left incomplete. In one respect, Fortoul had been forward-thinking, referring to his delegates as 'musician-archaeologists' and seeking to establish consistent best-practice standards of song transcription, instructing collectors to 'write the air just as you hear it, without changing anything'.[27] However, the goals of such early collection projects were

in the end carried out is unclear, and merits further investigation. In their attempt to facilitate an 'intercultural' musical 'translation' they might usefully be interpreted as 'instruments of empire' (following James Davies).

[25] Gevaert, *Histoire et théorie*, I, v.

[26] Fulcher, 'The Popular Chanson of the Second Empire'; Pasler, 'Race and Nation', 147–53.

[27] Quoted in Gonnard, *La musique modale en France de Berlioz à Debussy*, 17; 'Ecrivez l'air tel que vous l'entendez, et ne changez rien'


Paris Samedi 28 j.t 77

Cher Monsieur Burnouf

Merci de votre lettre, merci
aussi de la correction des épreuves
que vous avez faite avec autant
de perfection que d'obligeance.
Je suis heureux d'avoir laissé vaincre
de fautes matérielles, et je m'en veux
de vous avoir donné la peine de les
relever. Si je vous envoie mes épreuves,
c'est parceque je veux vous soumettre
mon ouvrage une dernière fois, avant
de le livrer au public; c'est votre
goût et votre science que je consulte.
Je ne voudrais pas abuser de votre
amitié au point de vous infliger

Figure 2.1: '...I am consulting you for your taste and for your science...'
Letter from Bourgault to Burnouf dated 28/vii/1877, asking him to look over publishers' proofs for his *Études sur la musique ecclésiastique grecque*.
Photographed by the author, F-NAbud, fonds Émile Burnouf.

largely antiquarian, with folk music conceived as 'a museum object for collection and publication', as Katharine Ellis has written.[28] Only over the following decades did the motivations of song collectors begin to shift from what Bruno Nettl has described as transcription-as-'preservation' (attempts to freeze still images of regional cultures) to transcription-as-'proof' (attempts to document the musically 'unusual') – akin to the shift

[28] Ellis, *French Musical Life*, forthcoming. I thank Katharine Ellis for sharing chapters of her work with me in advance of their publication.

identified by Ellis between collection projects of the 1850s (such as Fortoul's) and those of the 1880s.[29]

Bourgault's collection stands out from mid-century antiquarianism in its author's desire to yoke scientific (archaeological or philological) aspirations and artistic visions in one united project of folksong transcription and arrangement. Echoing Fortoul, and foreshadowing the importance that facsimile would come to have for musicologists of chant, Bourgault began by affirming his commitment to transcriptive exactitude with a telling metaphor: 'I have endeavoured, in notating each air, to reproduce it just as I heard it, to photograph it so to speak, abiding by it even when to do so breaks with the habits of European music, as much in terms of rhythmic regularity as modal constitution'.[30] Bourgault's invocation of photography referred less to the postcard imagery of 'folk' life, and more to the scientific authority of his transcriptions, thereby legitimating them as the basis for philological analysis. This motivation is obvious throughout Bourgault's preface and introduction: in place of a literary or ethnographic commentary on the songs' poetic content or performance contexts (the sort of information offered by Fauriel, Champfleury, or La Villemarqué in their well-known precedents[31]), Bourgault dived straight into music theory.

On this basis of his 'photographic' transcriptions, Bourgault observed that his melodies, regardless of their age, 'are built according to the principles of the *ancient scales*' – that they were not merely similar or analogous to modes, but the very vestiges of ancient music, 'still in use'.[32] The notion that folksongs were time-capsules of past musical practices was nothing new: a parallel argument in the context of French collection projects was perhaps articulated by Jean-Baptiste Weckerlin*, who asserted that folksongs lacking a leading-tone must date 'at least' prior to Monteverdi, for example, and that several exhibited characteristics suggesting a filiation with Gregorian chant.[33] However, Bourgault, with recourse to Gevaert's freshly published study, systematised the relationship between modern and ancient Greek music

[29] Nettl, *The Study of Ethnomusicology*, 77; Ellis, *French Musical Life*, forthcoming.
[30] Bourgault-Ducoudray, *Trente mélodies populaires de Grèce et d'Orient*, 8; 'Nous nous sommes attaché, en notant chaque air, à le reproduire tel que nous l'entendions, à le photographier pour ainsi dire, respectant en lui tout ce qui rompait avec les habitudes de la musique européenne, tant au point de vue de la régularité rythmique que sous le rapport de la constitution modale.'
[31] Fauriel, *Chants populaires de la Grèce moderne*; Champfleury and Wekerlin [sic], *Chansons populaires des provinces de France*; La Villemarqué, *Barzaz Breiz: Chants populaires de la Bretagne*.
[32] Bourgault-Ducoudray, *Trente mélodies populaires de Grèce et d'Orient*, 7; 22; '...la plupart de ces airs…sont construits d'après les principes des *gammes antiques*' [Bourgault's emphasis]; 'encore usités'.
[33] Champfleury and Wekerlin, *Chansons populaires des provinces de France*, xii.

through a primer on musical modes. He first presents the ancient Greek diatonic system; following Gevaert, he relates these modes to those of plainchant, and then to those of Greek and Byzantine ecclesiastical music.[34] In the final three pages, Bourgault departs from predecessors and develops his own theories. First, he introduces the 'oriental chromatic' scale, characterised as 'a succession of identical *chromatic tetrachords*, separated by a *complementary tone*', and suggests that it might be compared to the 'lydian' with flattened second and sixth degrees, or indeed to the European minor (Fig. 2.2). Finally, Bourgault introduces the concept of 'hybrid scales', in which tetrachords from two different modes are

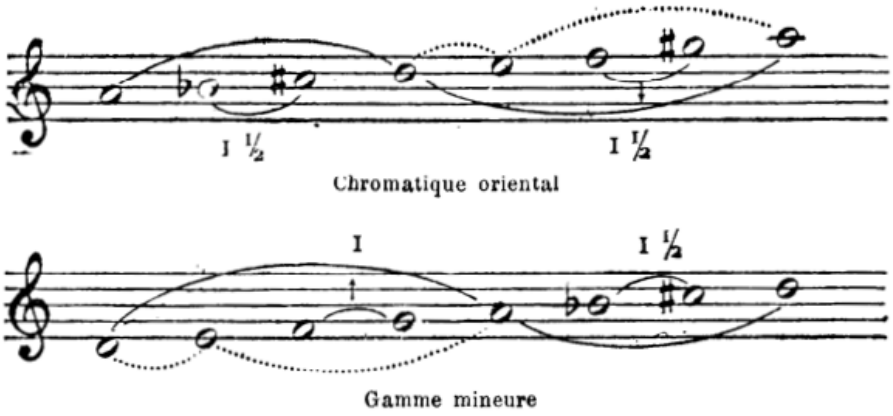


Figure 2.2: Bourgault compares the 'oriental chromatic' to the European harmonic minor (*Trente mélodies populaires de Grèce et d'Orient*, preface, 21)

mixed and matched.[35] The 'oriental chromatic' and 'hybrid' scale-types become essential sleights of hand for Bourgault as he develops his theory of filiation: the fact that the modes appear fractured, hybridised, or otherwise distorted, rather than undermining his claim, only reinforces his conviction: just as archaeological artifacts wither over the ages, so is music subject to change (or deterioration) brought about by the passage of time.[36] By enfolding the melodies' divergences from ancient modality into the structure of his broader quasi-philological theory of modal filiation, Bourgault strengthens the persuasive force of his argument. The tantalising notion that ancient music can be glimpsed and excavated through

[34] Bourgault-Ducoudray, *Trente mélodies populaires de Grèce et d'Orient*, 12–19 (preface).
[35] Ibid., 20–2 (preface); 'Une succession de *quartes chromatiques* semblables entre elles, séparées par un *ton complémentaire*'; 'gammes hybrides' [Bourgault's emphasis]. Note that Bourgault and others in this thesis used mode names corresponding to their Greek nomenclature (as understood in nineteenth-century French, codified by Gevaert), rather than to their medieval reappropriations (as they tend to be used today). Bourgault's 'Lydian' is more often known today as 'Ionian' = 'mode d'*ut*' or 'mode de *do*' = the 'major' mode; his 'Dorian' is more often known today as 'Phrygian' = 'mode de *mi*'. For Bourgault's terms for the diatonic modes, see *Trente mélodies populaires de Grèce et d'Orient*, 16 (preface).
[36] This logic exemplifies what Edward Said describes as a 'dialectic of reinforcement' (*Orientalism*, 94), and recalls Fétis's modes, which underwent their 'divers genres de modifications' (see Chapter 1, above).

the study of modern folksong motivates the conjunction of Bourgault's transcriptions and ancient Greek music theory, each one serving to reinforce the plausibility and scientific validity of the other.

Having sketched an overview of the theoretical preface of the *Trente mélodies*, I shall return to the musical aspects of his song arrangements in Chapter 5. For now, I shall pursue Bourgault's scholarship as his interest in Greek music morphed into a broader aryanist musicological and musical project over the subsequent decades.

Parisian networks.

It was not only, or perhaps even mainly, the originality of Bourgault's ideas that ensured their success and his; after all, locating ancient 'modes' in 'folk' music was not novel in itself.[37] Rather, Bourgault was proactive in propagating his ideas among receptive communities, and assertive in leveraging his creative goals in scientific terms.[38] Through publicity campaigns, ministerial contacts, and a flair for public lecture-concerts, he orchestrated the widespread and positive dissemination of his research. As he was preparing his publications, Bourgault consulted over the texts with hellenists (including Burnouf) and Greek musicians, efforts recorded in letters following his return from Athens. He gained access (presumably through Burnouf's introduction) to networks of hellenists, philologists, and archaeologists. Already in 1874 he had become acquainted with Maxime Collignon, Albert Dumont, and Charles Bayet;[39] following his 1875 mission, he visited the salon of philologist Émile Egger* (an *académicien*), and became active in the Association pour l'encouragement des études grecques (of which Egger and Émile Burnouf were founding members, alongside Renan and Louis Havet*), where his research was received enthusiastically.[40] Good publicity emerged from this networking, including Ruelle's write-ups in both the *Revue et gazette musicale* and the yearbook of the Association, and a substantial, glowing review in the *Journal des savants*

[37] See Gelbart, *The Invention of 'Folk Music' and 'Art Music'*, ch. 4. Annie Goffre has noted the frequency of conjunctures between folklorism and hellenism throughout nineteenth-century France ('Exploitation raisonnée de la musique folklorique en France et ses artisans depuis la fin du XIXe siècle', 296–7). On the extent to which 'modality' is, itself, an intellectual construction, see Powers, 'La modalité, une construction intellectuelle de la culture européenne'.
[38] Campos, '"Mens sana in corpore sano"', 158.
[39] Bourgault met these figures in Rome, en route back to Paris from his first Athenian sojourn. Letter dated 19/vi/1874, F-NAbud, fonds Émile Burnouf.
[40] Letter dated 'Lundi' [likely December 1875], F-NAbud, fonds Émile Burnouf. For the reception of Bourgault's presentations for the Association, see Ruelle, 'Quelques mots sur la musique des Grecs anciens et modernes'.

by the philosopher Charles Lévêque.[41] Only Bourgault's desire to speak at the Association française pour l'avancement des sciences was unrealised, as his work did not easily fit into the scientific sections by which the Congress was organised.[42]

In 1878, Bourgault contributed to the inaugural issue of *Mélusine*, a comparativist journal of popular traditions in which Indo-Europeanist theories of cultural filiation were *de rigueur*. Bourgault's participation in this circle is particularly interesting. The first two articles of the issue were authored by Gaston Paris and Bourgault respectively. Paris was a Romance philologist, medievalist, professor at the Collège de France, and another *académicien*, who had recently collaborated with none other than Gevaert on an edition of fifteenth-century songs.[43] In his article, Paris sets out some aspirations for the study of popular poetic and musical traditions. Extrapolating from the hypothesis of a proto-Indo-European language, he posits the existence of a common 'aryan' poetic patrimony. Extending this logic further, from language through poetry to song, Paris proposes a sort of arboreal taxonomy, mixing 'racial' and linguistic categories:

> The general design and family tree of our songs should someday be established more or less thus, going always from broadest to narrowest: we will go from humanity as a whole to the white race, – to the Aryans, – to each group of aryan people (slavic, – germanic, – greco-roman, – celtic, etc.) – to each people, – to each province, – to each canton.

Such an ambitious undertaking would require much more extensive research, Paris conceded; a more immediate priority would be the 'restitution of the earliest forms'.[44] This, therefore, is the immediate context in which Bourgault's contribution, 'La mélodie populaire en Orient' (an excerpt from his preface to the Greek song collection) appeared to *Mélusine*'s readership. Another among Bourgault's contributions to *Mélusine* was a review of Friedrich Kurschat's *Grammatik der Littauischen Sprache*, a Lithuanian primer that included some 'folk' melodies. In this short piece, Bourgault observes concordances between the Lithuanian melodies

[41] See *Revue et Gazette musicale de Paris*, 21/i/1877, 15/iv/1877, 18/xi/1877; the yearbook of the Association pour l'encouragement des études grecques, 1878, 238–45; and the *Journal des savants*, January 1879 et seq.
[42] Letter dated 14/viii/1875, F-NAbud, fonds Émile Burnouf. Bourgault apparently declined the Association's offer to place him in the 'Physics' section.
[43] Paris and Gevaert, eds., *Chansons du XVe siècle*.
[44] Paris, 'De l'étude de la poésie populaire en France', 4; 'le dessin général et l'arbre généalogique de nos chansons devra un jour ou l'autre être fixé à peu près ainsi, en allant toujours du plus vaste au plus restreint ; on ira de l'humanité entière à la race blanche, — aux Aryens, — à chaque groupe de peuples aryens (slave, — germanique, — gréco-romain, —celtique, etc.) — à chaque peuple, — à chaque province, — à chaque canton'; 'Ce qu'on doit demander maintenant à la comparaison, c'est surtout la restitution de la forme primitive'.

reproduced by Kurschat and his own findings in Greece, using Greek modal and metrical terminology. The choice of topic is intriguing: the Lithuanian language was accruing critical importance among Indo-Europeanist linguists in the late 1870s – its declension system and stress characteristics were believed to demonstrate a proximity to proto-Indo-European unrivalled among other modern languages, as though it were a sort of 'Galapagos of linguistic evolution';[45] Bourgault's interest in Lithuania may suggest a particular alertness to Indo-Europeanist currents.[46]

In September of that year, Bourgault trialled his theories on the biggest of Parisian stages, delivering a 'Conférence sur la modalité dans la musique grecque' at the Palais du Trocadéro as part of the 1878 *exposition universelle*. With Charles Gounod presiding over a friendly panel of assessors that included Burnouf and Ruelle, fellow musicians Alexandre Guilmant and Jacques-Nicolas Lemmens, and the philosopher Félix Ravaisson, Bourgault delivered an hour-and-twenty-minute long lecture to a public whose frequent 'bravos et applaudissements' were dutifully recorded by the stenographer.[47] Bourgault systematically presented the seven diatonic Greek modes plus the 'oriental chromatic', complete with examples from his own arrangements and compositions. He demonstrated their effects by transposing a common melody into each mode. He linked his own compositional experiments with Greek modality to those with plainchant modality, specifically referencing the panellist Lemmens, who had recently begun incorporating plainchant melodies into his organ sonatas, and whose own modal approach to plainchant accompaniment Bourgault had recently praised in the *Revue et gazette musicale*.[48] Bolstered by the academic flavour of the presentation, Bourgault concluded by converting his research into a creative creed:

> Our two modes, major and minor, have been so thoroughly exploited, that it is time to welcome any expressive means that might serve to rejuvenate musical language. This does not mean we should renounce any conquests already made, nor retreat from any of the resources of modern music, but on the contrary, it means we should expand the domain of melody expression and add new colours to the musical palate. (Applause.)

[45] Joseph, 'Why Lithuanian Accentuation Mattered to Saussure', 182; see also, Meillet, *Introduction à l'étude comparative des langues indo-européennes*, 2nd ed., 46–7.
[46] Bourgault's connection to Lithuanian folksong, including the legacy of Bourgault's ideas on future generations of researchers on Lithuanian folk music, is discussed in Karl Brambats, 'Louis Albert Bourgault-Ducoudray and Baltic Folk Song Research'; whether there is a link between Bourgault's networks and theories and those of Antanas Juškevičius, the Lithuanian folksong collector whose melodies were borrowed by Stravinsky in *Le Sacre du printemps*, may merit exploration.
[47] Bourgault-Ducoudray, *Conférence sur la modalité dans la musique grecque*.
[48] *Revue et gazette musicale*, 24/ii/1878, 57–8.

> In this way, we shall be able to resolve the problem which is now more difficult than ever: to be novel, while remaining simple (More applause.)[49]

Bourgault's vocabulary here is striking for its industrialist and imperialist resonances – in time, his language would drift away from the language of 'conquest' toward that of 'heritage'. The final phrase, a parting shot at Wagnerism, echoes his more pointed rebuke, expressed earlier that year, of 'increasingly minute intervals and the abuse of chromatic style'.[50] Bourgault later wrote that the *conférence* succeeded even beyond his expectations, with a packed hall and over two-hundred spectators turned away.[51]

In recognition of his successful publications and speaking engagements, Bourgault was offered the chair in music history at the Conservatoire in October 1878;[52] his inaugural lecture took place that December. While the institution was a fitting home given Bourgault's commitment to putting scientific research into musical practice, it was also one of the only jobs going, as there were scarcely any posts available for a 'music historian' in Paris until the next century. The institutionalisation of a music history professorship at the Conservatoire had come a decade earlier, in response to the mounting sense since as early as 1848 that an acquisition of general and historical knowledge was a necessary complement to the mechanics of music-making in the formation of an artist.[53] Bourgault's appointment, made specifically in recognition of his expertise in 'archéologie musicale',[54] thus placed him in an authoritative position of influence over the next generation of French composers.

Lands of sun and fog.

In 1881, with three years at the Conservatoire under his belt, Bourgault became engaged in another government-backed mission: to collect folksongs from his native Brittany. Upon his return, he opened that year's history lectures with a paean to 'my old Celtic province'. These

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[49] Bourgault-Ducoudray, *Conférence sur la modalité dans la musique grecque*, 48; 'Nos deux modes, majeur et mineur, ont été tellement exploités, qu'il y a lieu d'accueillir tous les éléments d'expression propres à rajeunir la langue musicale. Il ne s'agit ici de renoncer à aucune des conquêtes déjà faites, ni de rien retrancher aux ressources de la musique moderne, mais bien au contraire d'agrandir le domaine de l'expression mélodique et de fournir de nouvelles couleurs à la palette musicale. (Applaudissements.) De cette manière, on pourra résoudre ce problème qui est actuellement plus difficile que jamais: être neuf, tout en restant simple. (Nouveaux applaudissements.)'
[50] *Revue et gazette musicale*, 24/ii/1878, 58.
[51] Quoted in Baud-Bovy, 'Bourgault-Ducoudray et la musique grecque ecclésiastique et profane', 159.
[52] See, e.g., announcement in *Le Temps* on 9/x/1878.
[53] Campos, '"Mens sana in corpore sano"', 148–50.
[54] Ibid., 158.

lectures, serialised in *Le Ménestrel*, closely match the preface to the collection of *Trente mélodies populaires de Basse-Bretagne* which he then published in 1885.[55] The format and appearance of the Breton songbook marks it as a clear sequel to the Greek collection, a connection which Bourgault makes explicit in the introduction: 'Is it just for my love of contrast that I have allowed my studies of folksong to leap the distance separating the land of the sun from the land of fog? No: this second collection has a direct connection to the first; it is its logical consequence.'[56] Bourgault proceeds to flesh out the nature of this 'connection', between the modes and rhythms found 'not only in Greece and Brittany, but in Wales, Scotland, Ireland, Sweden, and into the heart of Russia'. The fundamental commonality among these peoples, Bourgault concludes, is 'racial': 'It seems proven today that the same characteristics can be found in the primitive music of all the peoples of the Indo-European group, that is, the aryan race.'[57] With ambitions resembling those of Fétis, Bourgault touts the potential of music to contribute to the broader scientific enterprise: 'the hypothesis of an aryan music confirms the conclusions of modern science concerning the communal origin of aryan peoples. Today the study of folksong brings a new argument in favour of the consciousness of aryan unity: the musical argument'.[58] Despite the premise of continuity between Bourgault's two song collections, Bourgault's tone here signals a radical shift from the technical language of music theory to that of ethnic nationalism. Where there had been talk of 'hybrid scales' preserved in Greek songs, now there are 'half-blood' and 'pure blood' melodies in Brittany.[59]

How might we account for Bourgault's shifting rhetoric? On the one hand, it seems certain, given Bourgault's familiarity with Burnouf and his writings (among others) that he had already accepted the aryanist hypothesis a decade prior. Even after this first visit, he wrote to Burnouf, 'today I feel justified in my love for ancient modes by a series of scientific and

[55] See *Le Ménestrel*, 4, 11, and 18/xii/1881.
[56] Bourgault-Ducoudray, *Trente mélodies populaires de Basse-Bretagne*, 5; 'Est-ce uniquement par amour du contraste que j'ai fait franchir à mes études sur le chant populaire la distance qui sépare le pays du soleil du pays de la brume? Non: cette seconde collection a une étroite connexité avec la première; elle en est la conséquence logique.'
[57] Ibid, 14–15; 'Il paraît aujourd'hui démontré que des caractères identiques se retrouvent dans la musique primitive de tous les peuples qui composent le groupe indo-européen, c'est-à-dire de race âryenne.' After formulating this claim, Bourgault rejects the possibility that 'modality' might have been introduced to Brittany at the time of plainchant.
[58] Ibid., 15–16; 'L'hypothèse d'une musique âryenne vient d'ailleurs confirmer les conclusions de la science moderne en ce qui touche à la communauté d'origine de tous les peuples âryens. Aujourd'hui, l'étude des chants populaires apporte à la conscience de l'unité âryenne un argument nouveau: l'argument musical.'
[59] Ibid., 11; 'mélodies *demi-sang*' and '*pur sang*'.

historical facts'.[60] If his participation in *Mélusine* were not sufficient proof of this, there are further circumstantial factors. For example, Bourgault met Liszt in Rome en route homeward from his first stay in Athens; according to Bourgault, the two 'spoke of the Vedas', and Bourgault recommended Burnouf's *Science des religions* to the older composer, who wished to know whether Bourgault intended to 'make something musical of it'.[61] Moreover, in the years following his second trip to Greece, Bourgault circulated among networks of enthusiastic Indo-Europeanists. In Nancy in 1876, he had met (again most likely at Burnouf's introduction) Prosper Guerrier de Dumast, the dogged philhellenist, orientalist, and regionalist who sought to introduce Sanskrit instruction to all the provinces of France and dreamed of an École française de Bénarès modelled on the one in Athens.[62] If anything, we might instead ask why Bourgault did not proclaim his beliefs earlier (perhaps Gevaert's opening remarks in the *Histoire et théorie* had given him pause). The fact that Bourgault is eminently aware of the Indo-European hypothesis, plus the particular resonance of 'Celtic' languages and cultures for Indo-Europeanists established since Jones, suggests that he would have been primed to locate (or produce) evidence of the hypothesis in Breton music before hearing a note of it.

Bourgault's convictions were likely strengthened by reading the work of Russian folklorists, including César Cui – who had praised the Greek modes in Russian folksongs in his important articles for the *Revue et gazette musicale* in 1878[63] – and Rimsky-Korsakov – whose folksong collection was positively appraised by Bourgault in 1879 for its rich and varied Greek modality.[64] Traces of Bourgault's interactions with another philologist and famed Breton

[60] Letter dated 'Vendredi 24[/vii] 1874', F-NAbud, fonds Émile Burnouf; 'je me sens aujourd'hui soutenu dans mon amour pour les modes antiques par un ordre de faits scientifique et historique.'
[61] Letter dated 'Jeudi 25' [vii/1874], F-NAbud, fonds Émile Burnouf. 'Je suis resté à Rome 4 jours. J'y ai vu Listz [sic] à qui j'ai parlé de vous. Il va s'empresser de lire votre Science des Religions qu'il n'a pas lue. Je lui ai parlé aussi des Védas; il m'a demandé si je comptais faire quelque chose avec cela musicalement. C'est un homme qui a un flair particulier. Je l'ai trouvé vieilli.' It was not the first time Liszt would have heard the name 'Burnouf': it was Eugène Burnouf's writings on Buddhism which Wagner (on the recommendation of Schopenhauer) had so enthusiastically absorbed and recommended to Liszt decades earlier (see above, Introduction, n39). Liszt apparently remembered Bourgault fondly, judging by a letter Liszt wrote to Caroline Wittgenstein dated 23/vi/1874, the only other trace I have found of their encounter: 'Parmi les jeunes compositeurs, lauréats de l'Académie de France, c'est Bourgault-Ducoudray qui a prêté l'oreille la plus bienveillante à deux ou trois de mes compositions d'église' (Haraszti, 'Liszt', 567). This data-point exemplifies the density and transnationalism of intellectual networks at play here between philologists and musicians.
[62] Letter dated 'Mardi 22' [1876], F-NAbud, fonds Émile Burnouf. On Guerrier de Dumast, see Lardinois, *L'Invention de l'Inde*, 101–2; A. Mézières, 'Au temps passé', 786.
[63] César Kuï, 'La musique en Russie', *Revue et gazette musicale*, 12/v/1878, 146; 'L'emploi des modes grecs, qui fournit la preuve de l'ancienneté des chants nationaux russes, a encore l'avantage d'en rendre la physionomie plus caractéristique…'. Cui's series of articles were collected and published as *La Musique en Russie* in 1880.
[64] *Revue et gazette musicale*, 23/xi/1879, 381; 'Non seulement les modes les plus communiément usités dans le plain-chant: l'*hypodorien*, le *dorien*, l'*hypophrygien*, le *phrygien*, s'y rencontrent en abondance; mais les variétés les plus rares et les plus curieuses du système diatonique défini par les Grecs s'y retrouvent également: le

folklorist, Théodore Hersart de La Villemarqué, offer further insight into Bourgault's rhetorical embrace of musical Indo-Europeanism. While conducting research in Brittany in 1881, Bourgault came into contact with La Villemarqué – with whose own collection of Breton folksongs, *Barzaz Breiz*, he would have been familiar[65] – and received the latter's assistance with respect to some translations of Breton lyrics.[66] Upon returning to Paris later that year, Bourgault wrote to La Villemarqué, with whom he had shared his Greek collection:

> I don't share your worry that the Breton melodies should appear meagre next to the Greek ones. They are ~~daughters~~ born under a different climate, but they may be more <u>related</u> to Hellenic music than is generally thought. Just as in the case of stories, popular traditions, etc., one finds all across Europe a trove of common traditions, equally, the folk music of countries that are <u>preservationist</u> [des pays <u>conservateurs</u>], Ireland, Brittany, Little Russia, etc., appears to derive from a common source.
>
> That's the sense I've had for a while, and that's what I hope studying Breton songs will allow me to demonstrate.[67]

In this letter, Bourgault implies that he did indeed hypothesise the possibility of a commonality among Indo-European folk musics, modelled on similar theories developed in particular by folklorists – and that he simply needed to conduct his own fieldwork to affirm this belief. Bourgault is likely to have found a sympathetic ear in La Villemarqué, who, by the 1867 reedition of *Barzaz Breiz*, had himself integrated gestures to Indo-Europeanist comparativism into his introductory remarks, and emphasised the intimate link between his collected verses and the music to which they were sung.[68]

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mixolydien (gamme diatonique basée sur la médiante *si*), le *syntono-lydien* (gamme diatonique basée sur la médiante *la*); enfin le *lydien* lui-même, ce mode déclaré perdu et Presque introuvable par le prince des érudits contemporains, par M. Gevaert, le *lydien* existe!'

[65] La Villemarqué's famed *Barzaz Breiz* was originally published in 1839, and reprinted, with updated introductory apparatuses, throughout the nineteenth century (including an eighth edition published in 1883, while Bourgault was preparing his own collection).

[66] A handful of Bourgault's letters to La Villemarqué are preserved at F-QUad, fonds 263J; digital copies are also held at F-BRcrbc. My thanks to Fañch Postic for transmitting me scans of these letters.

[67] Letter dated '28 Octobre [1881]', F-BRcrbc, fonds La Villemarqué, LV39.027; 'Je ne partage pas votre crainte que les mélodies bretonnes fassent maigre figure à côté des chansons grecques. Elles sont ~~filles~~ nées sous un autre climat mais elles ont avec la musique Hellénique plus de <u>parenté</u> qu'on ne le croit généralement. De même que pour les contes, pour les traditions populaires, etc., on retrouve dans toute l'Europe un fonds de traditions communes, de même la musique populaire des pays <u>conservateurs</u>, Irlande, Bretagne, Petite Russie etc. paraît dériver d'une source commune. C'est ce que je flaire depuis longtemps, et ce que l'étude des chants Bretons me permettra j'espère de démontrer.'

[68] La Villemarqué, *Barzaz Breiz*, Quatrième édition, lviii–lxv. According to Jean-Yves Guiomar, the integration of the Indo-European hypothesis into La Villemarqué's thinking dates from time he spent in Paris, and is first evidenced in his 1864 publication, *La Légende celtique et la poésie des cloîtres*, with its references to the 'Indo-Celtic' family and 'Aryas d'Erin'; ('Le *Barzaz-Breiz*', 535).

Furthermore, at the 1882 Session du Congrès Breton held in Châteaubriant, Bourgault contributed (in absentia) an address regarding the question of 'whether there exist resources of musical knowledge common among all branches of the Indo-European group'.[69] The address is framed as an open letter to La Villemarqué and pitched to a different (perhaps more scholarly) audience than the Conservatoire lectures and preface to the Breton collection. Although this address did not circulate as widely as the lectures or preface, it is worth examining in the interests of a more nuanced account of Bourgault's quasi-philological application of the comparative method. Postulating that 'the means of expression' (i.e., the 'modes') of Breton music, Greek music, and plainchant are incontrovertibly identical, Bourgault proffers two possible explanations: either that ancient Greek music spread, 'through the intermediary of Christianity and Gregorian chant', across greater Europe (we might consider whether this is a characterisation of Gevaert's theory); or else that 'these melodies, or at least the system which governed their construction' – an interesting qualification which evokes theories of linguistic evolution or development – 'date back to an era prior to Christianity itself and emerge from a store of knowledge common to all Indo-European peoples'.[70] Bourgault declares himself partisan of the second explanation, offering two reasons: first, Russian folk music resembles more closely Breton folk music and the Gregorian chant of the Latin church than it does the chants of the Orthodox church (at least, those that Bourgault had studied during his Greek mission), implying that Christianity itself was not the common musical conduit. Second, Gregorian chant, while derived from ancient Greek music, preserved only the melodic line of its Greek ancestor, not its rhythmic structure, whereas Breton music has a highly rhythmic character. The Breton people, 'un peuple *danseur*', could not have inherited their poetic and choreographic gifts via plainchant; thus the music, intimately bound up with Breton poetry and dance, must have preceded it. However, if the Bretons practiced music prior to the introduction of Christianity, what did it sound like? There must, Bourgault concludes, have been 'complete similitude' between plainchant and pre-Christian Breton modality; otherwise, a different, earlier modal system would have been retained in secular Breton music. On the basis of this plainly circular reasoning, Bourgault

[69] 'La Musique Populaire Bretonne', in *Bulletin archéologique de l'Association bretonne*, 204–11. See xiii for the programme of the congress, including the question addressed by Bourgault.
[70] Ibid., 204–5; 'Les moyens d'expression'; 'par l'intermédiaire du Christianisme et du chant grégorien'; 'ces mélodies, ou tout au moins le système qui a présidé à leurs constructions, remontent à une époque antérieure au Christianisme lui-même et proviennent d'un fonds de connaissances communes à tous les peuples du groupe Indo-Européen'.

affirms that 'the hypothesis of a trove of musical knowledge common to Greeks, Bretons, and all other branches of the Indo-European stem victoriously prevails'.[71]

When Bourgault published *Trente mélodies populaires de Basse-Bretagne*, however, he suppressed all mention of La Villemarqué. Perhaps Bourgault was distancing himself from La Villemarqué's shadow, not least since the latter had in recent decades become the subject of controversy – the so-called 'querelle du *Barzaz Breiz*' – with philologists, including Renan and Joseph Loth (both Breton), having accused him of abject fabrication in his collection.[72] Although La Villemarqué had provided Bourgault with prose and verse translations for a number of the songs he had collected, Bourgault used instead the more liberally stylised lyrics of Breton poet François Coppée.[73] And it was in fact with Loth – eminent linguist, co-director of the *Revue celtique*, future *académicien*, and occasional 'race' scientist – that Bourgault chose to affiliate in his preface to the *Trente mélodies*; and Loth dutifully gave the volume an enthusiastic review in the *Annales de Bretagne*.[74]

Throughout the mid-1880s, Bourgault would deepen his involvement in social and intellectual circles that regrouped philologists, folklorists, and artists. He attended meetings of the Cercle Saint-Simon alongside Gaston Paris and fellow musical folklorists Weckerlin and Julien Tiersot* (both of whom were also colleagues of Bourgault as librarians at the Conservatoire).[75] And his collaborations on the Breton collection offer a glimpse into Bourgault's involvement in broader pan-Celticist networks as well, in societies such as the 'Dîner Celtique' where Paris-based Breton writers, academics, and artists rubbed shoulders.[76] It would appear all but certain that Bourgault at some point crossed paths with Renan, who

[71] Ibid., 206; 'Donc l'hypothèse d'un fonds de connaissances musicales communes aux Grecs, aux Bretons et à toutes les branches du rameau Indo-Européen s'impose victorieusement'.
[72] For more on the collection, its history, and its reception, see Guiomar, 'Le *Barzaz-Breiz*'.
[73] Some of the translations La Villemarqué worked on and sent to Bourgault are preserved in F-BRcrbc, fonds La Villemarqué, LV39.019–029. Like Bourgault, Coppée, despite providing these lyrics, was non-'bretonnant' (non-Breton-speaking).
[74] Bourgault-Ducoudray, *Trente mélodies populaires de Basse-Bretagne*, 17–18; for Loth's review, see *Annales de Bretagne*, April 1886, 274–5. In addition to his primary work on Celtic languages, Loth's scholarly projects included an 'Enquête' into the physical characteristics of the Breton 'race', measuring the hair and eye colour of children across Brittany). As a colleague wrote at the time of his death, 'Le problème de la race hantait toujours son esprit' (Paul Mazon, 'Éloge funèbre de M. Joseph Loth', 81).
[75] Corbier, *Maurice Emmanuel*, 61–2. Given their divergent approaches to folksong harmonisation (Weckerlin and Tiersot's largely 'tonal' contra Bourgault's 'modal' approaches), it would be worth investigating these figures' relationship more closely. (Maurice Emmanuel, for his part, resented Tiersot's approach, as discussed in the next chapter.)
[76] The Dîners Celtiques, founded in 1878, quickly attracted a broader cross-section of Parisian literary life, and came to be nicknamed the 'messes renaniennes' and 'banquets Renan', in reference to one of the group's most prominent and central frequenters; see Gauthier, 'Les Dîners Celtiques'.

was involved in both of these societies. And in addition to La Villemarqué and Loth, he corresponded with Breton archaeologist and folklorist Lucien Decombe, who published his own book of folksongs from Ille-et-Vilaine and dedicated it to Bourgault.[77]

Bourgault would produce no further major scholarship following the Breton melodies, focusing instead on a number of compositional projects, and on maintaining his Conservatoire and public lecture commitments; although he did publish one final, less well-known, collection of folk melodies with his own harmonisations – *Quatorze mélodies celtiques (écossaises, irlandaises, galloises)* – in 1909, the year before his death.[78] Although he desired to compile his full Conservatoire history sequence and publish it as a volume, this plan was ultimately unrealised.[79] Nevertheless he enjoyed a rare, institutionalised status as an authority on musicology, remaining over the 1890s and into the twentieth century the 'only person to officially teach music history in France today',[80] maintaining his post at the Conservatoire with a stability that contrasted with musicology's fitful emergence within French universities, discussed in the next chapter.

Although Bourgault never managed to publish the volume of his Conservatoire lectures, many of his central ideas regarding 'aryan' music were recapitulated and rendered accessible to a broad public by Havrais composer, conductor, and musicologist Henry Woollett*, who published a four-volume *Histoire de la musique depuis l'antiquité jusqu'à nos jours* (1909–25).[81] Woollett's opening chapters concern the 'origins' of music: beginning with 'Vedic India, mysterious India, cradle of the world', he recounts how 'Indian music, of aryan origin, as we who are aryan should not forget, would spread by way of Persia, by Greece, and

[77] Decombe, *Chansons populaires recueillies dans le Département d'Ille-et-Vilaine*. Bourgault received the dedication warmly, and wrote Decombe with a list of his favourite songs from the collection (letter dated 3/xii/1884, F-RE, Ms. 1228).
[78] Unlike the previous collections, the *Quatorze mélodies celtiques* were not the product of his own fieldwork. See Corbes, 'L'origine des quatorze mélodies celtiques de Bourgault-Ducoudray'. However, Bourgault apparently did collect songs in Wales, some of which he sent to Jean-Théodore Radoux (Letter dated '26 Août', B-Bc, P-2-00001/57).
[79] These plans are alluded to in a letter to Jean-Théodore Radoux, dated '22 Mars', B-Bc, P-2-00001/62: 'Mon cours d'histoire de la musique n'est point encore publié. C'est un gros travail devant lequel j'ai reculé jusqu'à présent. Il faudra bien pourtant que je l'accomplisse un jour ou l'autre.'
[80] *La Revue musicale* (ed. Combarieu) (1/iii/1904), 130; 'le seul aujourd'hui qui, en France, enseigne officiellement l'histoire musicale'.
[81] Jann Pasler briefly discusses the aryanism of Woollett's *Histoire* in 'India and Its Music in the French Imagination before 1913', at 38.

gradually infiltrate its way toward Europe'.[82] (For additional details, he refers his readers to the work of Fétis, Bourgault, and Gevaert; while warning readers that certain of Fétis's claims should not be believed, he commends the authority of Bourgault's and Gevaert's scholarship.[83]) Most tellingly, he aligns himself with Bourgault's vision for the future of French art: 'Fortunately', he writes, 'musicians like Bourgault-Ducoudray...have preached musical rejuvenation through the use of the old ancient Greek formulas, whose influence can also be found in most of our old popular songs,' and states his belief, 'alongside Bourgault-Ducoudray, that the future of music is in its melodic and harmonic enrichment through the use of all known scales'.[84] Woollett even suggests that, by logical conclusion, it should be possible for composers to extrapolate Bourgault's modal advocacy and 'create new and original music by inventing some unusual scale and writing the melody and harmony exclusively using the notes of that scale'.[85] Woollett would promote several such scales in his own piano method, *Pièces d'étude pour piano sur les mesures et les tonalités dites d'exception* (1910).

However, Woollett's aryanist narrative is accompanied by an explicit antisemitism. He contrasts his aryanist narrative of history – a largely Fétisian model by which the Greeks and, most of all, 'white Europeans', 'purified and simplified' music from enharmonicism through to diatonicism according to 'clarity, order, and logic' – with a semitist narrative according to which the 'faults' of increasingly 'minute intervals' were exaggerated, rather than purged, by semites. This line of argument assumes a Wagnerian flavour when Woollett cites the Jewish penchant for stylistic assimilation, exemplified by Fromental Halévy – a passage all the more striking to read in French scholarship in the wake of the Dreyfus affair.[86] (The irony of Woollett's selected stereotype, in the context of his call to enrich French music through 'the

[82] Woollett, *Histoire de la musique*, I, 35; 43. 'Inde védhique [sic], de l'Inde mystérieuse, berceau du monde'; 'La musique de l'Inde, la musique d'origine aryenne, ne l'oublions pas nous qui sommes Aryens, devait par la Perse, par la Grèce, se répandre, s'infiltrer peu à peu vers l'Europe.'
[83] Ibid., I, 36.
[84] Ibid., I, 27, 30; 'Heureusement, des musiciens comme Bourgault-Ducoudray, le savant professeur du cours d'histoire de la Musique au Conservatoire, ont prêché le rajeunissement de la musique par l'emploi des anciennes formules grecques antiques, dont l'influence se retrouve d'ailleurs dans la plupart de nos vieux chants populaires'; 'Je crois donc, avec Bourgault-Ducoudray, que l'avenir de la musique est dans son enrichissement à la fois mélodique et harmonique par l'emploi de toutes les gammes connues.'
[85] Ibid., I, 27; 'Il s'ensuit donc que l'on pourrait même créer de toutes pièces une musique neuve et originale en inventant quelque gamme bizarre et en écrivant la mélodie et l'harmonie exclusivement avec les notes de cette gamme.' While Woollett gives the example of Edmond de Polignac's experiments with the octatonic scale, his suggestion projects forward to Messiaen's own creation of 'modes of limited transposition', which I shall take up again in Chapter 7.
[86] Ibid., I, 53–8.

use of all known scales', should not go unnoticed.) In his antisemitism, Woollett ventures into terrain where Bourgault had remained silent.[87] Nevertheless, Bourgault offered Woollett's work (at least this first volume, published the year before Bourgault's death) a hearty prefatory endorsement, praising the work as the only francophone study 'comprising a view of the complete development of musical language'.[88]

Sources like Woollett's *Histoire* provide a valuable benchmark against which to situate the next chapter. If scholars with more extensive university experience, like Aubry or Combarieu, are far more restrained, or at least nuanced, in their embrace of Indo-Europeanism even in the early years of the decade of 1900, the success of Woollett's publication by both popular and academic measures – it was reprinted in four editions, and awarded the Prix Bordin in 1910 by the Académie des Beaux-Arts[89] – suggests that aryanist historiography rooted in constructions of India as fount-and-origin was alive and well in the public consciousness.

Post-script: Émile Burnouf's musicology.

Bourgault-Ducoudray maintained his correspondence with Burnouf through the decades following their initial meeting, the effusiveness of his early letters maturing into a professionally cordial tone over the years as Bourgault's scholarly stature grew. Although it was first Bourgault who modelled his beliefs on Burnouf's, the interchange was later reciprocated, as Burnouf cast his eye toward music as a horizon of study. This shift adumbrates an important tide: that philologists, beyond providing a disciplinary model for musicology, began engaging musicologists in bilateral dialogue, thereby indexing (and enhancing) musicology's intellectual currency. Burnouf's most forceful musicological statement appeared in an 1886 article for the *Revue des deux mondes*, the periodical which

[87] The nature of Bourgault's antisemitism deserves further exploration, as most evidence is circumstantial and suggestive. Jane Fulcher has cited Bourgault's support for the anti-Dreyfusard Action française and Patrie française groups as evidence of his right-wing leanings ('The Concert as Political Propaganda in France', 41). However, the contexts for this support appear limited, and Bourgault maintained positive relations with colleagues across the political spectrum, from Bruneau to d'Indy, over the turn of the century. Meanwhile, Thomas Christensen notes Fétis's particular 'rejection' of antisemitism (at least as concerned European Jews) despite his aryanism and broader racism – a fact Christensen attributes to the coalescence of 'aryans'/'semites' under the aegis of a civilised 'race blanche' (*Stories of Tonality*, 207); if this is so, perhaps Bourgault reasoned similarly.

[88] Bourgault-Ducoudray, 'Préface', in Woollett, *Histoire de la musique*, I, n.p.; 'comprenant un aperçu du développement complet de la langue musicale.' Beyond the coordination of this preface, I am uncertain of the extent of Woollett and Bourgault's personal or professional relationship.

[89] The fact that Woollett's Prix Bordin was awarded by the Académie des Beaux-Arts means that the jury comprised mainly 'artists' rather than leading 'intellectuals'.

had serialised his *Science des religions*, and to which he remained a regular contributor for decades. This article, titled 'Les Chants populaires et le plain-chant', is nominally a review of four tranches of scholarship from previous decades: Gevaert's *Histoire et théorie*; Joseph Pothier's *Le Chant grégorien*; the 'éditions rémo-cambraisiennes' of plainchant restoration;[90] and Bourgault's two collections of songs. In truth, these works receive little direct attention; rather, the article serves to promote Burnouf's own forthcoming musicological monograph, *Les Chants de l'église latine* (1887). Nevertheless, by situating his polemic among this constellation, Burnouf unifies a triad of musical and musicological subjects – ancient music, plainchant, and folk music – into a common 'aryan' prism. If aryanism punctuated Bourgault's introduction to his Breton collection, here Burnouf proffered an entire narrative of western music shaped by an imagined 'aryan' continuity – a vision far more complete and elaborate than anything Bourgault ever wrote – connecting the ancient musics of India and Greece, through the medieval music of the Roman Church, right through to the sounds of present-day European folk and church music.[91] Burnouf's musicological work has hardly been revisited by musicologists in the last century; for the way it bestrides philology and musicology, and for its explicit aryanist agenda, it is worth highlighting some of his key contentions here.

Burnouf begins by delineating between 'la musique savante' and 'la musique populaire' – art music and folk music. Art music, he explains, is recent, arising in the Middle Ages and flourishing after the Reformation. It has very little to do with the music of the ancients; rather, 'it belongs entirely to modern Europeans'. Closely echoing Bourgault, Burnouf explains that art music is distinguished by the more or less exclusive use of a major and ('hybrid') minor mode. Burnouf chalks this restriction up to the 'entirely modern science' of harmony, which, while contributing to the 'progress of our music', has limited the possible modal-harmonic combinations.[92] By contrast, there is folk music. Here, Burnouf is careful to specify: he does not refer to the recent spate of collections, harmonised in major or minor, of popular songs and romances whose composers are known; he means the pure airs of unknown authorship –

[90] These editions, published over the 1850s, were the outcomes of an enquiry spearheaded by the archbishops of Reims and Cambrai and constituted the first efforts in France to restore plainchant to its early form on the basis of manuscripts. While the results inspired manifold objections from critics (including Burnouf), they represented the start of an important intellectual project which the Solesmes monks, among others, would later take up. See Clément, *Histoire générale de la musique religieuse*, 418–24.
[91] Burnouf, 'Les chants populaires et le plain-chant', 363.
[92] Ibid., 349–51; 'nos œuvres de musique sont originales et nous appartiennent en totalité'; 'Ce qui a le plus contribué au progrès de notre musique, ç'a été la science qu'on nomme harmonie, science qui paraît entièrement moderne'.

which have begun to be collected in England, Russia, and of course by Bourgault – and which are disappearing in modern life. 'It's just as in cities like Rouen or Caen, where we see old and elegant houses in sculpted wood replaced by the pretentious monotony of our great stone residences.'[93] Not only does folk music, conceived in utopian terms, promise a seemingly infinite and varied musical repository; according to Burnouf, folk music 'responds to one of humanity's most widespread needs: the union of music, poetry, and dance'.[94] Here, Burnouf pivots to the ancients. The fundamental characteristics of folk music described above formed the basis of the musical arts of ancient Greece, where they were rigorously systematised into modes and genera. This systematisation, in fact, is key:

> ...in India, as in ancient Greece, the scales used among the people have long been systematised; the musical system comprises a great number of modes beyond the major and minor, and a deity presides over each one of these modes: a sort of muse having a certain musical function. We see therefore the importance which these people, too, of aryan race, attach to musical theory and practice.[95]

In tracing 'aryan' musical exploits, via India, Greece, Sicily, Rome, and further north, Burnouf stages a coup de grâce in which he contrasts a liberal and fertile musical culture among the aryans against a hypocritical and repressive musical culture attributed to the semites.[96]

Such is the context Burnouf provides for his study on early Latin chant, sketched in the article and expanded in *Les Chants de l'église latine*, with 'metre and rhythm restituted according to the natural method'.[97] To contextualise Burnouf's place within chant scholarship, we might adopt the helpful tripartite division of plainchant scholarship at the *fin-de-siècle* drawn up by Antoine Dechevrens*. According to Dechevrens, opinions on the future of liturgical chant fell along three broad currents:

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[93] Ibid., 354–5; 'C'est ainsi qu'on voit dans des villes comme Rouen ou Caen les anciennes et élégantes maisons de bois sculpté remplacées par la monotonie prétentieuse de nos grands hôtels de pierre.'
[94] Ibid., 355; '…répond à l'un des besoins les plus généraux de l'humanité: l'union de la musique, de la poésie, et de la danse'. The triad of 'music, poetry, and dance' would later become one of Maurice Emmanuel's favourite talking points.
[95] Ibid., 357; 'Je dirai seulement que dans l'Inde, comme dans l'ancienne Grèce, les gammes usitées parmi le peuple ont été de bonne heure systématisées; que le système musical comprend un grand nombre de modes autres que le majeur et le mineur et qu'à chacun de ces modes préside une divinité: c'est une sorte de muse ayant sa fonction musicale déterminée. On voit par là quelle importance ce peuple de race aryenne attachait, lui aussi, à la théorie et à la pratique de l'art musical'.
[96] Ibid., 358; these characterisations echo the aryan/semite binaries sketched in the Introduction of this thesis.
[97] Burnouf used the term 'restitution' to describe his methodology; this should not be confused with 'restoration', the term most often used to describe the palaeographic, manuscript-based method.

1. the current state of chant was adequate and required no change, with different dioceses using whichever edition of chant they found most suitable;
2. chants should be refreshed through the establishment of rhythms newly composed with an eye toward modern-day accessibility, irrespective of the question of current editions; or
3. it should be both possible and desirable to attempt the restoration of chant to the state it was in when standardised by Gregory, through palaeographic study of manuscripts.[98]

The Benedictines (as well as the Jesuits under Dechevrens, despite their differences) were partisans of the third stream; whereas Burnouf was classed alongside Lemmens, Félix Huet, and Auguste Teppe in the second. While the Benedictine system, with its palaeographic evidence and unmeasured approach to rhythm, was eventually institutionalised by the Church and recognised by academic musicologists, its authority was far from assured in the 1880s and '90s; and so, although Burnouf's chants, measured in bars of 2/4 and 6/8, may look unusual today, in many ways he presented a less radical approach to chant than that advocated at Solesmes.[99] The results more closely resemble Dechevrens's own, which also relied on a mensural approach – although the latter's manuscript-based methodology was fundamentally aligned with that of the Benedictines.

When it was published, *Les Chants de l'église latine* was widely reviewed in and beyond the musical press, with write-ups in various periodicals of general intellectual interest – including a full feuilleton in *Le Temps* by Johannes Weber, who was critical but ultimately encouraging, provided that Burnouf's project not be misconstrued as restoration.[100] Stéphen Morelot stood apart in his excoriating feuilleton for the Catholic newspaper *L'Univers*, noting with particular ire Burnouf's complete neglect of manuscript study ('Texts! He produces none of them'), and adherence to long-disproven hypotheses.[101] The attack, which Morelot insists is not a reaction to Burnouf's secularism but to the quality of the science itself, extends in a final turn beyond Burnouf's contribution to musicology:

[98] Dechevrens, *Du rythme dans l'hymnographie latine*, v–vi.
[99] My thanks to Susan Rankin for this perspective.
[100] *Le Temps* (26/ix/1887); 'Je trouve donc fort légitime qu'on cherche à mettre le plain-chant d'accord avec la manière dont on prononce le latin aujourd'hui, et à ce point de vue le travail de M. Burnouf est très méritoire, pourvu qu'on ne veuille pas nous donner cette "restauration" comme un retour à l'antique.' See also, e.g., *Le Livre* (10/xi/1887); *La Revue générale* (i/1887); and in the musical press, *Le Ménestrel* (30/i/87).
[101] *L'Univers* (18/iv/1887), 1–2.

> No reader of Mr. Burnouf's book, however uninitiated they might be in the matters it concerns, can avoid asking themselves this question: If, in his work on the antiquities of India, on the *History of Religions* [sic], etc., the former director of the École d'Athènes used the same critical procedures, brought the same care to the examination of data and documents as in the present work, what estimation should we have of their value?[102]

Part of the dispute Morelot seized upon, between Burnouf's approach and the Benedictines' (and the Jesuits', for that matter), might be viewed as a divergence in the way philology is appropriated for application to musical objects: while Burnouf's musical philology appropriates the specific teleology of human history extrapolated from comparative philology's linguistic hypotheses and applied to an ever-broader range of cultural products, the Benedictines' 'palaeography' appropriates philology's 'textual attitude', that is, its fundamental reliance on comparing the oldest original texts possible.[103] Bourgault had in fact raised concerns to Burnouf, in correspondence, regarding the lack of concern for manuscripts or editions in Burnouf's efforts (as well as the strictness of Burnouf's mensural adherence) – but ultimately he congratulated Burnouf for the 'artistic' value his chants possessed.[104] When Burnouf's work was published, Bourgault integrated it into his Conservatoire lectures; and Burnouf also affirmed, in his preface, that both Bourgault and Gevaert approved of his endeavours.[105]

Burnouf did not waver in his restitutional approach over the following decade, judging by his subsequent musicological publication: an edition of settings of texts from the Song of Songs and the Book of the Apocalypse to chants from the Antiphoner. Rather, Burnouf doubled down on his approach to the mensuralisation of chant, contrasting his 'prosodic and analytical' approach – which he further legitimated through an appeal to Aristotle's definition of rhythm – with the 'historical' (though also mensural) approach of Dechevrens.[106] This

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[102] Ibid., 2; 'Il n'est pas un lecteur du livre de M. Burnouf, si peu initié qu'il soit aux matières auxquelles il touche, qui ne se pose cette question: Si, dans ses travaux sur les antiquités de l'Inde, sur l'*Histoire des religions* [sic], etc., l'ancien directeur de l'école d'Athènes a usé des mêmes procédés de critique, a apporté le même soin à l'examen des faits et des documents que dans le présent ouvrage, quelle idée est-on autorisé à se faire de leur valeur?'

[103] John Haines asserts that '"Paléographie musicale" n'est qu'un autre nom pour "philologie musicale"' ('Généalogies musicologiques', 30). We can see from this example that there is more nuance between the concepts than he assigns.

[104] See letters dated 28/ii/85; 9/iii/85; 24/ix/1895; and 21/v/86 F-NAbud, fonds Émile Burnouf.

[105] Burnouf, *Les Chants de l'église latine*, x. Bourgault confirms that he uses Burnouf's restitutions in his letter dated 24/ix/1895, F-NAbud, fonds Émile Burnouf.

[106] Burnouf, *Le Cantique des Cantiques et l'Apocalypse*, 7–8.

time, the notion of aryanist continuity upon which the project is based was signalled iconographically on the volume's cover page, a superposed swastika and chi-rho among other symbols bestowing an esoteric flavour to the document which befitted its publisher, the Librairie de l'Art Indépendant (Fig. 2.3).[107] Given the artistic and literary circles that famously congregated at the Librairie, it seems possible that this work will have reached a musical as well as philological audience.[108] Paul Dukas*, an enthusiastic reader of the sorts of comparative and orientalist religious history in which the Librairie specialised, gave Burnouf's volume a positive review (while noticing its opposition to the Benedictine

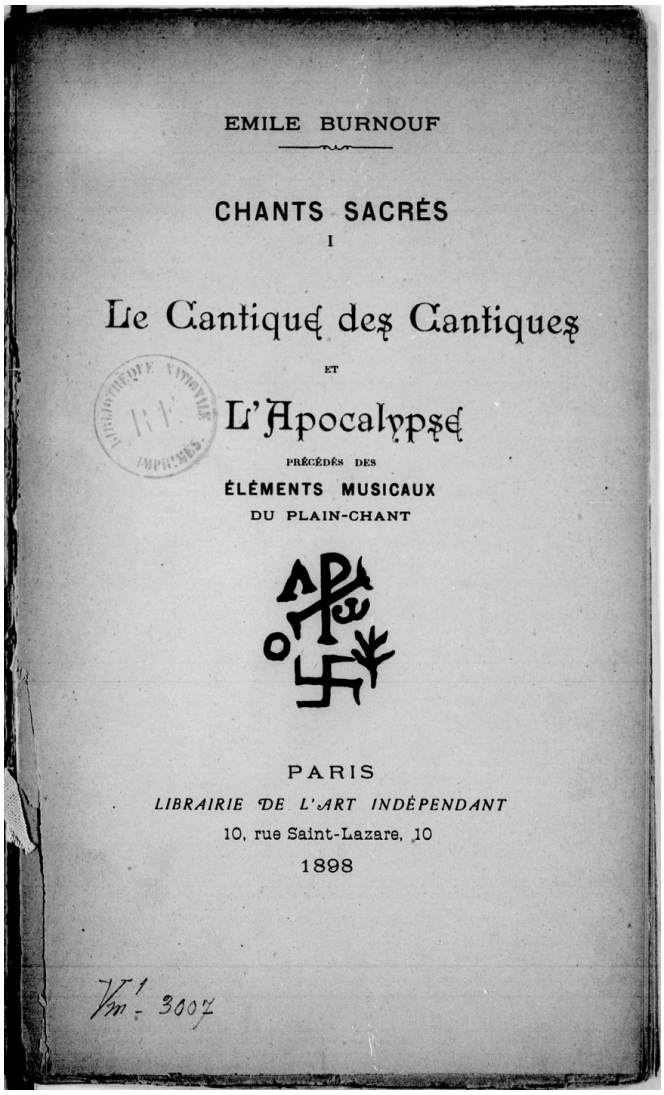

Figure 2.3: The cover of Émile Burnouf's edition of the Song of Songs
Source: gallica.bnf.fr / BnF

[107] The Librairie de l'Art Indépendant had also published Burnouf's *La Bhagavad-Gîtâ* and *Le vase sacré et ce qu'il contient dans l'Inde, la Perse, la Grèce et dans l'église chrétienne*.
[108] On the musical circles attracted to this bookshop, see Herlin, 'À la Librairie de l'Art indépendant'; and more recently Pasler, 'Revisiting Debussy's Relationships with Otherness'. My thanks to Denis Herlin for sharing his article with me.

approach).[109] We glimpse, therefore, how philological conceptions of Indo-Europeanism overlapped and bled into occult aryanism too, even within musicology.[110] Rather than pursuing these crosscurrents in the next chapter, however, we shall gravitate back to the linguistic 'core', as an emergent generation of musicologists attempted to institutionalise and professionalise their discipline.

[109] Dukas, 'Chronique musicale', *La Revue hebdomadaire*, 8 (v/1899), 130–40, at 140.
[110] On broader interchanges between philology and the occult with respect to India and Indo-Europeanism, see Lardinois, *L'invention de l'Inde: entre ésotérisme et science*.

CHAPTER 3

ANTOINE MEILLET'S MUSICOLOGICAL PUPILS

By the turn of the twentieth century, scholars of a new generation sought to institutionalise a more rigorous discipline of musicology within the academy, following a trend in German-speaking higher education.[1] With its positivist aspirations, this discipline would contrast with the conservatoire-based study of music history, strongly orientated toward musical practice (Fétis, Gevaert, and Bourgault-Ducoudray each worked for Conservatoires). Figures like Jules Combarieu (1859–1916) and Romain Rolland* (1866–1944) acknowledged the 'artistic' character of Bourgault's Conservatoire lectures; and though I do not believe they intended this disparagingly, they recognised the difference between what Bourgault could offer young musicians, and what scholars with broader academic training could offer the study of music history.[2] As Combarieu and others sought to build this new discipline, they looked to philology and linguistics for epistemological guidance and disciplinary authority, affiliating themselves with philologists in efforts to infiltrate scholarly discourses, gain institutional footholds, and foster interdisciplinary dialogues. The work of one linguist, and lifelong Indo-Europeanist, in particular – Antoine Meillet (1866–1936) – would become an especially important touchstone for French musicologists during these years.

Meillet was a star pupil of Ferdinand de Saussure (whom he lastingly admired);[3] of philologist Michel Bréal* (whom he disdained); and of hellenist Louis Havet*. Historians of linguistics widely regard Meillet as 'the most distinguished comparativist of twentieth-century France', coming to 'reign single-handedly over French linguistics until his death in 1936'.[4] He taught at the École pratique des hautes études and the Collège de France, and was elected to the Académie des inscriptions et belles-lettres in 1924. Furthermore, Meillet was an avid

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[1] Lacombe, 'Conditions d'émergence et premières formes d'organisation de la musicologie française', 37–8.
[2] Combarieu, 'La succession de M. Bourgault-Ducoudray', *La Revue musicale*, 9 (1909), 485; and Rolland, *Musiciens d'aujourd'hui*, 259; both are quoted in Mordey, 'Ideologies in Music History', ch. 1. My thanks to Delphine Mordey for sharing her unpublished work on Bourgault with me.
[3] Jean-Paul Demoule specifies that Meillet was a student of 'the first Saussure' – that is, the Paris-based Indo-Europeanist and comparativist who was, himself, very much a student and admirer of Pictet – rather than the later, Geneva-based 'structuralist Saussure' most remembered today, whose *Cours de linguistique générale* was compiled and published posthumously by his students (*Mais où sont passés les Indo-Européens?*, 182). On this, see also Morpurgo Davies, 'Saussure and Indo-European Linguistics'.
[4] Morpurgo Davies, *Nineteenth-Century Linguistics*, 280; Demoule, *Mais où sont passés les Indo-Européens?*, 162.

and sophisticated musician. An amateur pianist, he practiced daily and played four-hands with his sister.[5] He immersed himself in Parisian concert-going life, as evident in the regular, trenchant criticism of contemporary music and performance scrawled in the margins of concert programmes from the 1880s preserved in his professional archives,[6] or in his personal, now-published diaries from 1896 to 1907.[7] Wagner and Italian opera bored him (for different reasons); Schumann, Strauss, and d'Indy* – composers who sought to excite 'every fibre susceptible to emotion' – embarrassed him; *Pelléas* drew admiration for its text-setting, tempered by frustration with its absence of clear tonality; only Chabrier's *Briséis* elicited unmitigated praise.[8] Meillet's exasperation seems rooted in hostility toward (in his view) unadventurous audiences too lazy to tolerate novel or honest expression: 'The concert-going public is pleased only by great and profound music, or music it believes to be so. Art which is simple, clear, elegant and naïvely true eludes them.'[9] Meillet also kept abreast of the professional world of musicians and musicologists at the major institutions – accusing most individuals of mediocrity.[10] In one journal entry, he asks piteously, 'Who could write a history of musical harmony?'; his despairing rejoinder: 'And above all, who would read it?'[11] Despite his aloofness toward the Parisian music scene, Meillet's linguistic scholarship infiltrated musicology and reverberated into music in significant, yet unexamined, ways. Two of the main conduits of Meillet's work into musical circles, in contrasting fashion, were Pierre Aubry (1874–1910) and Maurice Emmanuel (1862–1938).

I begin this chapter by surveying a handful of efforts to institutionalise musicology as a discipline, with particular attention to how intrepid musicologists ventured to formalise musicology's relationship with philology. This structural overview sets the stage for a detailed examination of the scholarly encounters between Meillet, Aubry, and Emmanuel. While the broader institutionalising efforts may be read as primarily an affiliation of principle (a means for the new discipline to siphon authority from the older one), Meillet's scholarship

[5] Anne-Marguerite Fryba-Reber and Gabriel Bergounioux, 'Les journaux de Meillet', 9.
[6] F-Pcfa, MLT 17.6, 'Programmes de concerts annotés par Antoine Meillet'.
[7] Fryba-Reber and Bergounioux, 'Les journaux de Meillet'. Meillet does not appear to have published any of his own writing on music during his lifetime.
[8] Ibid., 44, 55–6, 75–6.
[9] Ibid., 80; 'Le public des concerts ne se plaît qu'à des musiques grandes et profondes, ou qu'il croit telles. Un art simple, clair, élégant et naïvement vrai lui échappe.'
[10] E.g., ibid., 68, where he laments the appointment of Auguste Sérieyx as professor of composition at 'a serious school with lofty ambitions' (i.e., the Schola Cantorum).
[11] Ibid., 71; 'Qui pourrait écrire une histoire de l'harmonie chez les musiciens (Beethoven n'écrit pas comme Bach, ni Franck comme Beethoven)? Et surtout qui la lirait?'

made an exceptionally significant imprint on the intellectual trajectories of Aubry and Emmanuel – particularly in their respective efforts to develop hypotheses of musical Indo-Europeanism – in two related ways: first, by trying to shift their causal vectors away from 'racial' determinism (whereby music and language are rooted in an 'Indo-European' ethnic identity) and toward ideas of linguistic determinism (whereby music is conceived as a potential outgrowth of language, and thus language families); and second, by focusing their attention away from 'modes' and pitch classes (conceived in metaphorical relation to verbal morphemes) and toward 'metres' and rhythm (conceived in metonymic relation to phonology/prosody). Building on historical phonological research – in particular on syllabic stress structures classified in terms of lengthened duration, heightened pitch, or intensified volume – Meillet, Aubry, and Emmanuel each in their own ways sought to identify and hone rhythmic characteristics of Indo-European languages and musics. The musicologists' adoption of Meillet's scholarship was not always rigorous or frictionless, but it was decisive for the formulation of their own musicological hypotheses – and in the case of Emmanuel, musical ideas.

Instituting a 'musical philology'.

The encounter between Meillet and his musicological interlocutors may be contextualised within French musicology's disciplinary institutionalisation – through the establishment of coordinated intellectual discourses and research initiatives, courses and curricula, and venues for the collective publication and review of scholarship. French musicology's embryonic period has been surveyed amply by John Haines, Rémy Campos, Michel Duchesneau, and Hervé Lacombe, among others, and requires no extended recapitulation here.[12] However, with the exception of Campos – who has drawn attention to some of the ways early musicologists found disciplinary models in philology and sociology – the important participation of philologists and linguists has not figured in these studies of musicological networks. And even Campos underassesses philology's importance: he omits philology's role in shaping Combarieu's scholarship (instead allying Combarieu with sociology); and he does not acknowledge philology's investment in the Indo-European hypothesis, and the implications of

[12] Haines, 'Généalogies musicologiques'; Campos, 'Philologie et Sociologie de la musique au début du XXe siècle'; Duchesneau, 'French Musicology and the Musical Press (1900-1914)' and 'French Music Criticism and Musicology at the Turn of the Twentieth Century'; Lacombe, 'Conditions d'émergence et premières formes d'organisation de la musicologie française (1900-1914)'; and Duchesneau et al., 'Musicologie et presse musicale en France (1889-1914)'.

this for musicologists who hoped to adapt philology to musical objects. This brief overview revisits these contexts in light of these themes, as helpful background for the subsequent case studies.

One challenge of formulating a musical philology lay in determining the precise locus of intersection between music and language which would allow a linguistic methodology to be legitimately applied to music. The relationship between language and music was a perennial matter of scholarly debate, a prominent thread throughout French intellectual history exemplified in the work of Rousseau, Condillac, and others.[13] If the analogy between music and language had been effortlessly taken for granted by Fétis, the new generation of musicologists, wishing to substitute what Combarieu called Fétis's 'empty loquacity' with substance, sought concrete points of contact between music and language that would legitimate methodological appropriation.[14] One early and important attempt, even before Combarieu, to link language and music directly through philology came from the Benedictine monks at Solesmes Abbey, remembered for their role in the restoration of Gregorian chant. The Benedictines propounded the idea of a 'musical philology' in 1889 in the introductory framing of their monumental facsimile editions, *Paléographie musicale*, published collectively but understood as the intellectual work of André Mocquereau (1849–1930). In the introduction, Mocquereau cites the past century's philological breakthroughs, and in particular the work of Émile Egger* (one of the philologists whom Bourgault had met), and used the familial analogies of 'langue mère', 'sœur', and 'fille' to describe language origins and filiations.[15] He notes how the very structures of the 'Indo-European languages' – their grammar, syntax, cases, tenses, and letters – testify to 'the history of their transformations'. Music – or 'le langage chanté' – as he pointedly calls it, is subject to the same types of historical developments as language; therefore, the same methods should bring to bear on its study. He asks: 'Why shouldn't musicists' – a word used throughout the introduction, perhaps a neologism from 'linguists' – 'try in turn to create, if I may use the word, a musical philology, through the application of the historical and comparative method to various forms

[13] See Thomas, *Music and the Origins of Language*.
[14] Combarieu referred to Fétis's 'creux verbiage' in a letter to readers of *La Revue musicale*, quoted in Duchesneau, 'French Musicology and the Musical Press (1900-1914)', 246.
[15] Bénédictins de l'Abbaye de Solesmes, 'Introduction générale', in *Paléographie musicale*, I, 33. Katherine Bergeron, who also quotes from this passage, plainly attributes the remarks to Mocquereau (*Decadent Enchantments*, 94). Mocquereau's own turn to comparative philology, according to Bergeron, contributed to his methodological divergence from his Solesmes colleague Joseph Pothier – even as the two of them fundamentally agreed on chant's essential emergence from speech.

of musical language?'[16] Whereas Fétis and Bourgault had likened musical 'modes' and 'scales' to various linguistic structures, this analogical relationship did not satisfy the more rigorous philological scrutiny of a new generation of scholars. Instead, another parameter – rhythm and metre – began to emerge as a true component property of both language and music.[17] Mocquereau, for example, encouraged musical philologists to turn to the rhythmic characters of languages to restore music as it naturally emerged from those languages. 'Latin' and 'Roman' musics, he argued, are rooted in certain qualities of Latin and Romance languages – in particular, their respective cadence and rhythm.[18] Although Mocquereau relied upon Indo-Europeanist philology to formulate his theories, his true goal was not essentially Indo-Europeanist, but rather to restore plainchant to its 'original' Gregorian state; specifically, the alignment of music and language through philology helped Mocquereau distance his conception of Gregorian rhythm from the periodic metrical structures of 'modern' music, which had in turn been applied to other efforts at plainchant restitution (such as Burnouf's).

Combarieu credited Mocquereau admiringly with the creation of the 'new science' of 'musical philology'.[19] Perhaps inspired by Mocquereau, Combarieu too began reading the work of philologists and linguists, at least since the time of his doctoral research on the relationship between musical and poetic expression, in which he cites linguists including Egger and Paul Regnaud* (who will return in Chapter 4).[20] In his *Théorie du rythme*, Combarieu suggested that all philological scholarship concerning the style and form of

[16] Ibid., 33; 'Pourquoi les musicistes n'essaieraient-ils pas à leur tour de créer, qu'on nous permette ce mot, une philologie musicale, par l'application de la méthode historique & comparative aux diverses formes du langage musical?'
[17] To the modest extent that they considered 'Indo-European' rhythm or metre, Gevaert and Bourgault had viewed its basis as determined by 'race' rather than by language. For Gevaert, see my discussion in Chapter 1; for Bourgault, see, e.g., *Trente mélodies populaires de Basse-Bretagne*, 13–14. Unlike the later figures discussed in this chapter, Fétis and Gevaert largely clung to mensural conceptions of Greek metre, forcing sequences of longs and shorts into equal bar lengths, and, in a sense, allowing contemporaneous European musical sensibilities for metrical regularity to shade their conceptualisation of ancient poetic metre, with somewhat convoluted results; Cheong Wai-Ling surveys these efforts briefly in her article (published near the completion of this thesis), 'Ancient Greek Rhythms in Messiaen's *Le Sacre*', 105–7.
[18] Mocquereau, 'L'art grégorien: son but, ses procédés, ses caractères', *La Tribune de Saint-Gervais*, 3 (1897), 1–2. While Maurice Emmanuel would take some exception to Mocquereau's conclusions, it is revealing that the premise of the debate – the application of linguistic, phonological concepts (e.g., 'ictus', or intensive accent) to musical objects – was unquestioned, and it was only a matter of method. See the review of Mocquereau's work in *La Tribune de Saint-Gervais*, 14 (1908), 262; although jointly authored by Emmanuel and Amédée Gastoué, this part of the argument seems clearly to be Emmanuel's.
[19] Combarieu, *Théorie du rythme*, 180n2; see also Bergeron, *Decadent Enchantments*, 93–4.
[20] Combarieu, *Les rapports de la musique et de la poésie*, 179–89.

ancient lyrical poets is in fact pertinent to the history of musical composition.[21] And while he spared Fétis no criticism, Combarieu admitted that Fétis had one 'beautiful, fecund idea': 'the direct relationship that should be established between the history of music and that of language. Fétis foresaw this connection, which makes the study of music a branch of philology.'[22]

Yet, as musicologists eagerly appropriated philology as a disciplinary model, the disciplinary appellation met resistance from certain quarters of the academic establishment, exemplified by the effort to institute a 'Cours d'histoire et de philologie musicales' at the Collège de France in 1898, with Maurice Emmanuel as its instructor.[23] The motion was sponsored by Étienne-Jules Marey (whose novel technique of chronophotography had played an important role in Emmanuel's thesis on dance[24]); several of Emmanuel's mentors, including Bréal, Havet, Gaston Paris*, and archaeologist Maurice Croiset, were present and it seems reasonable to suspect that they supported the motion. Gevaert (not in the institution's professorship) endorsed the idea via an impassioned letter, extending support to Emmanuel, importantly, on the basis of Emmanuel's dual credentials – 'as a philologist, by his Latin thesis and French volume on ancient dance (a work of incontestable originality and which evinces a profound knowledge of the musical arts); – and as a musician, by his brilliant studies at the Conservatoire and talent – very real – as a composer'.[25] The Collège de France, it was pointed out in the discussion, had a tradition of inaugurating courses and professorships as trial balloons for unconventional disciplines. When Marey's motion came to a vote, the creation of the course passed by a large majority, but with a caveat: that the word 'philologie', which 'raised various objections' anonymised in the meeting's minutes, should be removed from the title, which became simply, 'Histoire de la musique'.[26] (Ultimately, the post, as proposed in 1898 and approved by the faculty body, was quashed by the Ministry of Public

[21] Combarieu, *Théorie du rythme*, 11. Moreover, it is noteworthy that the *Théorie du rythme* was published as the first instalment of a series of 'Études de philologie musicale' which would later also include Combarieu's *La Musique et la magie* – not usually thought of today as a work of 'philological' scholarship.
[22] Ibid., 128–9; '...il y a une belle idée, une idée féconde... Cette idée est celle du rapport étroit qu'il convient d'établir entre l'histoire de la musique et celle du langage. Fétis a eu le pressentiment de cette connexion qui fait des études musicales une branche de la philologie...'
[23] F-Pcfa, 4 AP 304.
[24] On Marey and Emmanuel, see Dorf, *Performing Antiquity*, 84–8.
[25] F-Pcfa, 4 AP 304 (g); '...en tant que philologue, par sa thèse latine et son livre français sur la Danse antique (travaux d'une originalité incontestable et qui témoigne d'une connaissance approfondie des arts musicaux); – en tant que musicien, par de brillantes études faites au conservatoire et par un talent – très réel – de compositeur.'
[26] F-Pcfa, 4 AP 304 (k); 'Le mot de philologie dans le titre du cours en question soulève diverses objections. On convient de s'en tenir au simple titre d' "Histoire de la musique".'

Instruction for budgetary reasons;[27] and when a chair in 'Histoire de l'art musical' was finally instituted at the Collège de France in 1904, it was thanks to a donation from automobile manufacturer Louis Mors, apparently conditional upon the appointment of Combarieu over Emmanuel.[28])

Another major catalyst for musicology's disciplinary consolidation – and philological association – was the 1900 *Congrès international d'histoire de la musique*, of which the *Revue d'histoire et de critique musicales* emerged as a product and continuation, to be edited by Combarieu. The 1900 *Congrès* was, itself, the eighth subsection of the *Congrès international d'histoire comparée*, an event which itself illustrates how comparativism grew from its origins in Boppian grammar to become a transdisciplinary epistemology a century later. It is a sign of Bourgault-Ducoudray's enduring authority as disciplinary doyen that he became president of the congressional committee, addressing himself to a 'phalanx of very devoted and valiant young men, admirably armed for the fight'.[29] The assimilation, or at least affiliation, of musicology with linguistics was a fundamental aim of the newfound *Revue*. In Combarieu's statement of the journal's mission, he wrote that 'music appears to us first of all as a language, for which one must, before speaking it, know the grammar'.[30] On this basis, he marshalled a crew of linguists onto the publication's masthead: 'we wished to associate with our enterprise – and their adherence extends beyond mere principle, as we shall see – several great and noble families of philologists: MM. Alfred and Maurice Croiset, M. Jules Girard, M. Ruelle*, — M. Louis Havet, — M. Gaston Paris, M. A[ntoine] Thomas, M. [Maurice] Prou, — M. [Antoine] Meillet' (Fig. 3.1).[31] The *Revue* sought to establish itself as an intellectual enterprise of scientific rigour. The marketing prose used to advertise it in related

[27] See Emmanuel's correspondence with Gaston Paris from 1898, in which he describes his unsuccessful attempts to sway members of the budgetary commission to rule in favour of him and the Collège de France's application (F-Pn, NAF 24439).
[28] As Combarieu wrote to Havet: 'Un ingénieur électricien, riche amateur de musique, veut bien offrir au Collège de France la somme nécessaire pour que je puisse faire, pendant cinq ans, et sur la musique, un cours complémentaire de l'histoire de l'art. Par déférence pour le Collège de France, M. Mors s'abstient de me désigner, mais il a nettement indiqué à M. Levasseur le caractère de sa donation' (letter dated 10/iii/1904, F-Pn, NAF 24492(1)). Combarieu's follow-up, with an explicit condemnation of Emmanuel's candidacy on the basis of Gevaert's unsuitability to evaluate Emmanuel's medievalist credentials (letter dated 22/vi/1904), suggests that Havet had attempted in vain to support Emmanuel again at this juncture. Lionel Dauriac, Georges Houdard, and Romain Rolland had also presented themselves for the post.
[29] Combarieu, ed., *Congrès international d'histoire de la musique: documents, mémoires et voeux*, 8.
[30] Combarieu, 'Notre programme', 1; 'La musique nous apparaît d'abord comme une langue dont il faut, avant d'en parler, posséder la grammaire…'
[31] Ibid., 2; '...avons-nous voulu associer à notre entreprise — autrement que par une adhésion de principe, on le verra, — plusieurs grandes & nobles familles de philologues: MM. Alfred & Maurice Croiset, M. Jules Girard, M. Ruelle, — M. Louis Havet, — M. Gaston Paris, M. A. Thomas, M. Prou, — M. Meillet'.

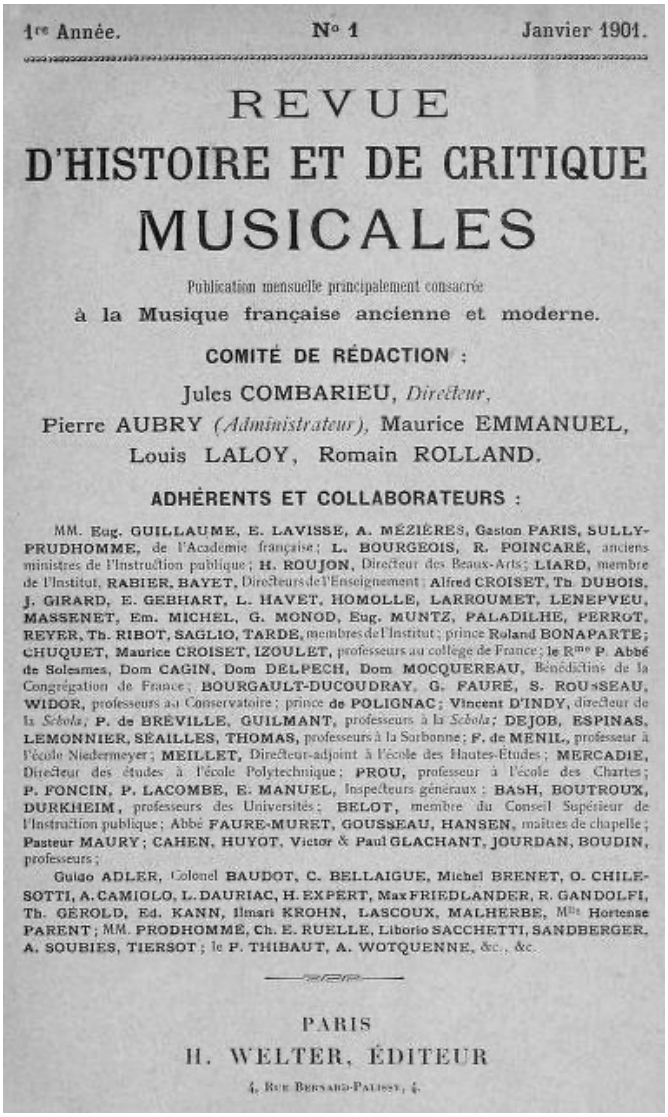

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Figure 3.1: The inaugural issue of the *Revue d'histoire et de critique musicales* boasted a venerable intellectual network of subscribers and collaborators – comprising philologists, musicologists, and musicians – on its front cover.

special-interest journals emanated airs of distinction: 'What gives the *Revue d'histoire et de critique musicales* its greatest value, to our minds, is that it is put together by scholars and in a truly scientific spirit. We don't really welcome musicians who are nothing but musicians.'[32] Such sanctimony notwithstanding, the philologists' concrete participation remained minimal (save for two modest book reviews by Meillet, both in 1901) – little more than a public

[32] Such an advertisement can be read in *La Tribune de Saint-Gervais*, 7 (1901), 296; 'Mais ce qui donne à la *Revue d'histoire et de critique musicales* son plus grand prix, à notre sens, c'est qu'elle est rédigée par des érudits et dans un esprit véritablement scientifique. On n'y aime guère les musiciens qui ne sont que des musiciens.' This phrasing is very close to language used elsewhere by Aubry, who wrote: 'Aujourd'hui, l'histoire de la musique n'appartient plus aux musiciens qui ne sont que des musiciens, car la science contemporaine, en développant chaque jour davantage les exigences de la critique, enlève aux praticiens la partie scientifique de leur art pour la confier soit aux philologues, soit aux historiens, soit aux philosophes et aux savants.' (*La Musicologie médiévale*, 1).

endorsement, which Combarieu had privately solicited – demonstrating that this scholarly network was a product of active 'networking'.[33] For his part, Combarieu, whose writings were often printed in the journal, continued citing the linguists' work in such lecture-articles as 'La Grammaire musicale'.[34]

Meillet and the search for 'Indo-European rhythm'.

While Combarieu wielded the structures of intellectual activity in order to formalise the relationship between the disciplines of music and language, Aubry and Emmanuel explored the implications of that relationship for musicological knowledge, seeking in particular to refine the application of philology's Indo-European hypothesis to musical objects of study. Meillet was instrumental to both Aubry's and Emmanuel's efforts to bridge philology and musicology. I begin with Aubry, who engaged with Meillet's scholarship earlier than Emmanuel. Aubry, among the most renowned musicologists of his generation, was an avid practitioner of 'musical philology', and would issue perhaps the single most impassioned appeal for the 'Indo-European' project in the musical realm. I highlight in particular Aubry's transition from thinking about 'modes' and 'race' to thinking about metre and language in writings from 1898–1905, during which Indo-Europeanism remained among Aubry's primary preoccupations, and Meillet among his chief points of reference. Then, I turn to Emmanuel's own explorations of 'Indo-European' modality, and subsequently metre, particularly after World War One; in contrast to Aubry, Emmanuel increasingly followed the footsteps of

[33] See, e.g., Combarieu's entreaty to Havet (letter dated 1/xi/1900, F-Pn 24492(1)):

> Je sais que vous ne vous considérez pas comme compétent en matière musicale; mais nous considérons les études que nous voudrions entreprendre avec méthode, comme une branche de la philologie.
>
> Un sujet comme l'analyse des "formes lyriques de la tragédie grecque" – pour prendre un exemple entre mille – n'est-il pas un sujet musical ?
>
> Une étude qui a pour objet de montrer que dans les mots latins les syllabes initiales étaient fortes, ne touche-t-elle pas à la question du rythme dans le plain-chant ?
>
> Les théoriciens qui ont écrit en latin (à partir du IX^{e} siècle) sur la musique, ne méritent-ils pas d'être lus, amendés (je vous assure que leur texte en a besoin!) et édités ?
>
> J'ose dire que toutes les études qui ont pour objet l'organisation rythmique du langage n'auraient qu'à gagner à faire alliance avec la musique — et que de son côté, la musique aurait tout profit à l'affranchir un peu des virtuoses de concert pour s'unir aux études qui sont les vôtres.
>
> C'est dans cet esprit que j'ai l'honneur de vous demander si vous voudriez nous autoriser à inscrire votre nom à côté des noms de M. M. Lavisse, Monod, Alfred Croiset, Perrot, Liard, etc…. etc….
>
> Il s'agit d'un simple encouragement à une tentative sérieuse, faite par les hommes de bonne volonté, qui ne sont ni des hommes d'affaires ni hélas! des capitalistes…

[34] These lectures are serialised in Combarieu, 'La Grammaire musicale', *La Revue musicale*, 5 (1905), 606–16, et seqq. An outline of their contents is printed in *La Revue musicale*, 5 (1905), 498.

Bourgault-Ducoudray, trading positivistic rigour for artistic vision as he transformed Meillet's scholarship into a compositional agenda through the 1920s.

Pierre Aubry. Aubry's ambitions to unite music and philology began with his thesis, 'Philologie musicale des trouvères', completed under Gaston Paris at the École des Chartes; the project's interdisciplinarity required Paris to seek Bourgault's special participation on the jury.[35] Like Combarieu, Aubry's interest in philology may have been sparked by the Solesmes community, whom he frequented during the mid-1890s. Aubry professed his own vision for a 'philologie de la musique' at the Institut Catholique (an educational institution with ties to the Schola Cantorum), where he opened his 'medieval musicology' course in 1898 by asserting that any 'musical text' could legitimately be subjected to scientific philological methods.[36] His investment in Indo-Europeanism glinted even in his early, medievalist work; in another lecture from that year, reprinted in *La Tribune de Saint-Gervais*, he opined that early Christian poetry and music showed 'something eternal and innate, constitutive of the genius of the aryan races, the sentiment of beauty in harmony'.[37]

The following year, Aubry enrolled at the École des langues orientales, where he studied Armenian with Auguste Carrière (receiving another diploma in 1900), while absorbing further lectures on Armenian by Meillet, who was then deputising for Bréal at the Collège de France and also taught at the École des langues orientales.[38] It was thus in linguistic, not musical, circles that Aubry came into contact with Meillet. Their mutual interest in Armenian is telling: for scholars and students of Indo-Europeanism at the turn of the twentieth century, Armenia

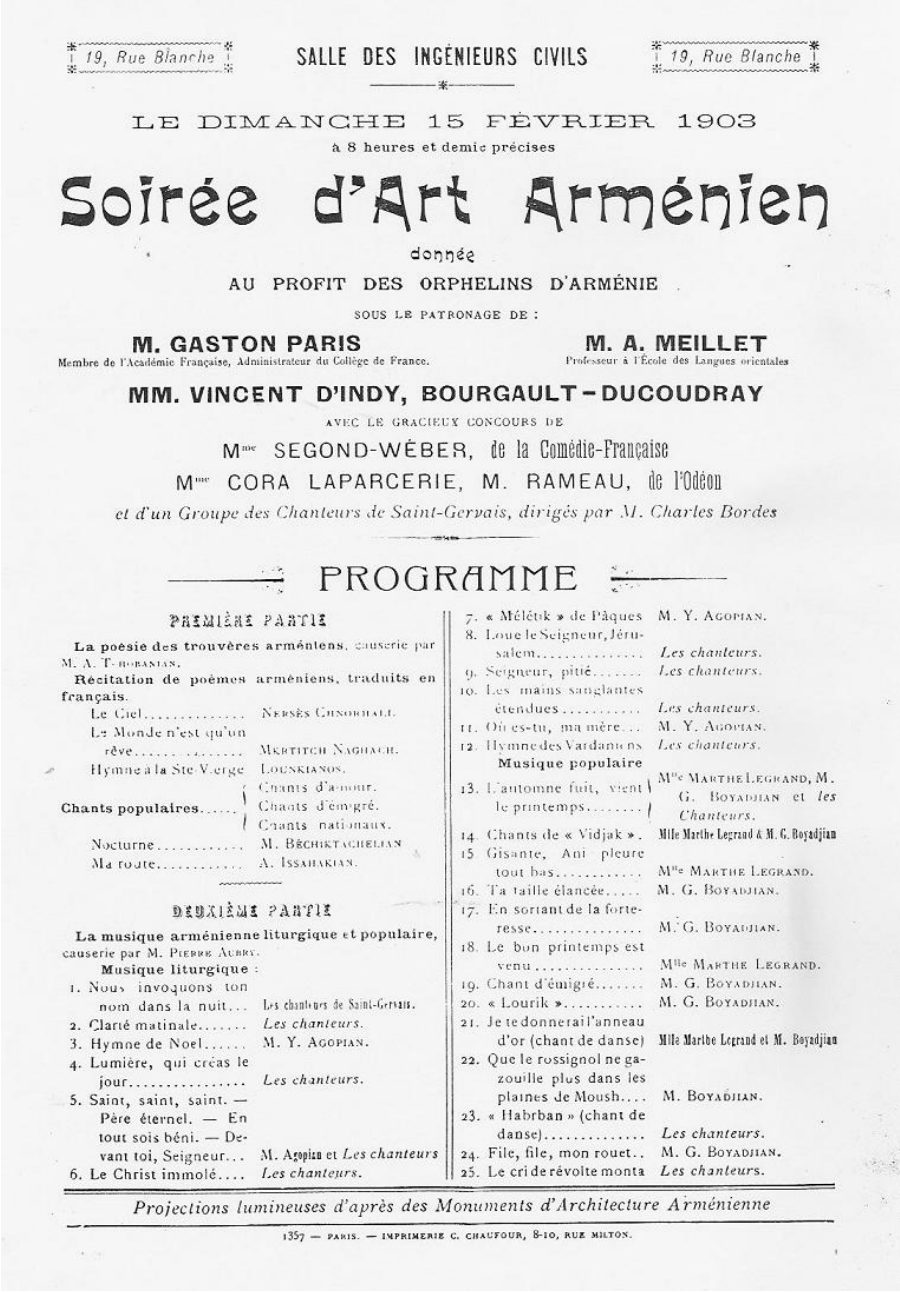
[35] See Bourgault's letter to Paris (F-Pn, NAF 24433, fol. 271), in which he accepts Paris's request to examine Aubry's thesis, while noting his 'repugnance marquée' for the subject of medieval notation.
[36] The course was published in 1900 as *La Musicologie médiévale: histoire et méthodes*. Aubry's use of the French term 'musicologie' in this context has become a *locus classicus* for the coining of the neologism (Bergeron, *Decadent Enchantments*, 92; Lacombe, 'Conditions d'émergence et premières formes d'organisation de la musicologie française', 48). Yet John Haines has spotted the term in use as early as 1852 ('Généalogies musicologiques', 21), while Gevaert's nonchalant reference to 'la musicologie' in the opening pages of his *Histoire et théorie* suggests the term's currency in the decades prior to the twentieth century (I, 7). Even so, Bergeron is right to note that Aubry was especially deliberate in his affiliation of 'musicologie' with 'philologie'.
[37] Aubry, 'L'inspiration religieuse dans la poésie musicale en France du moyen âge à la révolution', 17; 'il y avait ce quelque chose d'éternel et d'inné, constitutif du génie des races aryennes, le sentiment de la beauté dans l'harmonie.' Incidentally, the same issue of *La Tribune de Saint-Gervais* contains a scathing reappraisal (over a decade after the fact) of Émile Burnouf's *Revue des deux mondes* article, 'Les chants populaires et le plain-chant', by Adrien Vigourel, a Solesmes partisan who objected not only to Burnouf's manuscript-free methodology, but also to Burnouf's broader intellectual relativisation of Christianity in an Indo-Europeanist framework – as Vigourel put it, for Burnouf's having 'battu en brèche *au nom du sanscrit* (!!!) la religion chrétienne' [Vigourel's emphasis]. However, unlike Morelot's critique (see Chapter 2, above), Vigourel does object to Burnouf's secularism.
[38] Vittu and Erbslöh-Papazian, 'Pierre Aubry et la musique arménienne', 108n17.

occupied an intriguing position. Like Lithuanian, Armenian was considered a conservative 'branch' of the Indo-European language family, rich in 'archaisms from the "old, shared Indo-European dialect" lost in other languages.'[39] Armenia's geography – on the Caucasian isthmus, wedged into land variously contested by Persian, Russian, and Ottoman empires – and its culture – especially its ancient and tenacious Christian tradition – added additional intrigue for a comparative Indo-Europeanist. It was this last quality which captivated Aubry: pursuing the path of Bourgault's studies on Greek folk and ecclesiastical music, Aubry sought to draw links between Armenian popular and sacred song. Aubry shared his interest in Armenia with fellow musicologists: he delivered a talk in February 1903 at a Soirée d'Art Arménien benefiting Armenian orphans and co-sponsored by Paris, Meillet, d'Indy, and Bourgault (Fig. 3.2). A year later, he went a step further, connecting the Armenian and Greek cases in a lecture titled, 'La chanson des opprimés (Grecs et Arméniens)'[40], and implying a connection between the two that went beyond music theory.[41]

Aubry believed in the potential of a comparative study of 'the traits common to liturgical chant of diverse Christian Churches' to glean 'precise insights into the chant of the primitive Church.'[42] He viewed the Armenian tradition as a third data point, alongside the Latin and Greek churches, to inform this reconstruction. This was his contention in a lengthy 1901 article in the *Tribune de Saint-Gervais*, in which he called for a musical philology in the service of Indo-Europeanist fantasy. His appeal is worth excerpting at length:

> I have often put forth the idea that the general methods of 'philology' are applicable to the scientific study of music. …This point of view seems today definitively proven and justified by simple good reason… The comparative grammar of Indo-European languages, by the collection of traits common to the Sanskrit, Zend, Armenian, Greek, Latin, Germanic, and Celtic languages, reveals an ancient form of language from a time when they were rather indistinct from each other. Thus we approach a restitution

[39] Quoted in Gandon, *Meillet en Arménie*, 22. Gandon draws parallels between Saussure's research travel to Lithuania and Meillet's to Armenia.
[40] It was upon Aubry's request for music at this conference that Ravel composed two of his *Cinq mélodies populaires grecques*.
[41] On Aubry's relationship with Armenia and its music, see Vittu and Erbslöh-Papazian, 'Pierre Aubry et la musique arménienne'; like Bourgault-Ducoudray, Aubry undertook fieldwork in Armenia as part of a government-backed mission. For more on how Aubry fits into nationalist and anti-Muslim constructions of Armenian music, see Olley, 'Remembering Armenian Music in Bolis'. My thanks to Jacob Olley for sharing his paper prior to publication.
[42] Aubry, 'Le Système musical de l'église arménienne', 329; 'nous nous proposons de retrouver, en examinant les traits communs au chant liturgique des diverses Églises chrétiennes, quelques indices précis du chant de la primitive Eglise.'



19, Rue Blanche — SALLE DES INGÉNIEURS CIVILS — 19, Rue Blanche

LE DIMANCHE 15 FÉVRIER 1903

à 8 heures et demie précises

Soirée d'Art Arménien

donnée

AU PROFIT DES ORPHELINS D'ARMÉNIE

SOUS LE PATRONAGE DE :

M. GASTON PARIS
Membre de l'Académie Française, Administrateur du Collège de France.

M. A. MEILLET
Professeur à l'École des Langues orientales

MM. VINCENT D'INDY, BOURGAULT-DUCOUDRAY

AVEC LE GRACIEUX CONCOURS DE

Mme SEGOND-WÉBER, de la Comédie-Française

Mme CORA LAPARCERIE, M. RAMEAU, de l'Odéon

et d'un Groupe des Chanteurs de Saint-Gervais, dirigés par M. Charles Bordes

PROGRAMME

PREMIÈRE PARTIE

La poésie des trouvères arméniens, causerie par M. A. T-HOBANIAN.

Récitation de poèmes arméniens, traduits en français.

Le Ciel..... NERSÈS CHNORHALI.
Le Monde n'est qu'un rêve..... MKRTITCH NAGHACH.
Hymne à la Ste Vierge LOUSKIANOS.

Chants populaires..... Chants d'amour. Chants d'émigré. Chants nationaux.

Nocturne..... M. BÉCHIKTACHELIAN
Ma route..... A. ISSAHAKIAN.

DEUXIÈME PARTIE

La musique arménienne liturgique et populaire, causerie par M. PIERRE AUBRY.

Musique liturgique :

1. Nous invoquons ton nom dans la nuit... Les chanteurs de Saint-Gervais.
2. Clarté matinale..... *Les chanteurs.*
3. Hymne de Noel..... M. Y. AGOPIAN.
4. Lumière, qui créas le jour..... *Les chanteurs.*
5. Saint, saint, saint. — Père éternel. — En tout sois béni. — Devant toi, Seigneur... M. Agopian et *Les chanteurs*
6. Le Christ immolé.... *Les chanteurs.*
7. « Mélétik » de Pâques M. Y. AGOPIAN.
8. Loue le Seigneur, Jérusalem..... *Les chanteurs.*
9. Seigneur, pitié..... *Les chanteurs.*
10. Les mains sanglantes étendues..... *Les chanteurs.*
11. Où es-tu, ma mère... M. Y. AGOPIAN.
12. Hymne des Vardanions *Les chanteurs.*

Musique populaire

13. L'automne fuit, vient le printemps..... Mlle MARTHE LEGRAND, M. G. BOYADJIAN et *les Chanteurs.*
14. Chants de « Vidjak ». Mlle Marthe Legrand & M. G. Boyadjian
15. Gisante, Ani pleure tout bas..... Mlle MARTHE LEGRAND.
16. Ta taille élancée..... M. G. BOYADJIAN.
17. En sortant de la forteresse..... M. G. BOYADJIAN.
18. Le bon printemps est venu..... Mlle MARTHE LEGRAND.
19. Chant d'émigré..... M. G. BOYADJIAN.
20. « Lourik »..... M. G. BOYADJIAN.
21. Je te donnerai l'anneau d'or (chant de danse) Mlle Marthe Legrand et M. Boyadjian
22. Que le rossignol ne gazouille plus dans les plaines de Moush.... M. BOYADJIAN.
23. « Habrban » (chant de danse)..... *Les chanteurs.*
24. File, file, mon rouet.. M. G. BOYADJIAN.
25. Le cri de révolte monta *Les chanteurs.*

Projections lumineuses d'après des Monuments d'Architecture Arménienne

1357 — PARIS. — IMPRIMERIE C. CHAUFOUR, 8-10, RUE MILTON.

Figure 3.2: Poster for the Soirée d'Art Arménien, involving philologists (Paris, Meillet) and musicians from the Schola Cantorum (including Vincent d'Indy, Bourgault-Ducoudray, and Charles Bordes), and a lecture by Aubry.

of the hypothetical language belonging to a core among human races, the Indo-European; certain philologists specialising in comparative grammar seek, in these various languages, common roots, similar procedures of morphological inflection…

Well, can we not follow the same reasoning in musicology? May we not believe that a comparative grammar of musical languages is scientifically legitimate,

and that, once founded upon solid bases, the results will be precious for the study of languages and that of races?

Therein lies a preliminary hypothesis, which I would form thus: are we allowed to believe that Indo-European peoples have a musical sentiment which is common to them, and which is likewise distinct from the musical sentiment of peoples of semitic or turanian origin? I believe we may respond affirmatively, and, more generally, to say that two musical elements, tonality and rhythm, correspond to a common quality in the Indo-European races as clearly as word roots or morphological inflections.

A second hypothesis then comes to mind: can we assemble, as in comparative grammar, the elements common to the musical theories of the Indo-European races, tonalities, rhythms, and say that such or such trait found in the Armenian, Greek, or Latin musical art, for example, must belong to the original source?

Why not? If the investigative methods of philology are applicable to the science of music, then why should conclusions which are legitimate when it comes to the ancient state of a language no longer be so when we want to recover a forgotten musical civilisation?[43]

[43] Aubry, 'Le Système musical de l'église arménienne', 325–6; 'Nous avons souvent émis cette idée que les méthodes générales de la philologie sont applicables à l'étude scientifique de la musique… Ce point de vue nous semble aujourd'hui définitivement acquis et justifié par le simple bon sens, assez pour que nous ne nous y arrêtions plus. Mais de cette identification entre la langue des mots et la langue des sons découle un certain nombre de conséquences. Nous en avons relevé plusieurs, mais la liste n'est pas close, et, aussi loin que les philologues s'avanceront dans le domaine inexploré de leur science, aussi loin, à leur imitation, pouvons-nous aller en matière de musicologie. Ainsi un problème se pose: la grammaire comparée des langues indo-européennes, par le groupement des traits communs au sanskrit, au zend, à l'arménien, au grec, au latin, au germain, au celtique, révèle un état ancien du langage, plus exactement l'état où se trouvaient ces langues au moment où elles étaient encore peu distinctes les unes des autres. On approche ainsi d'une restitution de la langue hypothétique d'un même noyau de races humaines, l'indo-européen; quelques-uns des philologues qui s'occupent de grammaire comparée recherchent donc dans ces divers idiomes les racines communes des mots, les procédés semblables de flexions morphologiques… Or, ne pouvons-nous pas raisonner de même en matière musicologique? N'avons-nous pas le droit de croire qu'une grammaire comparée des langues musicales est scientifiquement légitime, et que, le jour où elle sera fondée sur des bases solides, les résultats seront précieux pour l'étude des langues et celle des races? ...Il y a là une première hypothèse que nous formulerons ainsi: sommes-nous autorisés à croire que les peuples indo-européens ont un sentiment musical qui leur soit commun et qui soit en même temps distinct du sentiment musical des peuples d'origine sémitique ou touranienne? Nous croyons pouvoir répondre affirmativement, et, d'une façon générale, dire que les deux éléments musicaux, la tonalité et le rythme, répondent chez les races indo-européennes à une donnée commune aussi clairement que les racines des mots ou les flexions morphologiques. Une deuxième hypothèse se présente ensuite à l'esprit : pouvons-nous, comme en grammaire comparée, grouper les éléments communs aux théories musicales des races indo-européennes, notations, tonalités, rythmes, et dire que tel ou tel trait qui se rencontre à la fois dans l'art musical arménien, dans l'art grec, dans l'art latin, par exemple, doit appartenir au fond primitif ? Pourquoi non? Si les méthodes d'investigation de la philologie sont applicables à la science musicale, pourquoi les conclusions qui sont légitimes quand il s'agit de rechercher l'état ancien d'une langue, ne le seraient-elles plus quand nous voulons retrouver une civilisation musicale oubliée?'

Here Aubry calls for nothing short of a musicological counterpart to the linguistic reconstruction of proto-Indo-European, such as that attempted by Schleicher. At this stage, he invokes 'tonality' (in a general sense of pitch systems) and 'rhythm' as musical parameters equivalent to those of linguistics – an equivalency which I have argued is based on a metaphorical conceptualisation of the relationship between music and language. Appearing in 1901, Aubry's article might have unsettled a number of philologists and linguists. For one, linguists were gradually turning away from the potential of proto-Indo-European's historical reconstructability in favour of synchronic study of structures within languages.[44] Furthermore, Aubry's equation of linguistic Indo-Europeanism with notions of an 'Indo-European race', though a widespread habit, would have raised eyebrows among the intellectual cutting-edge – including Meillet: if linguists were not yet rejecting 'race' as a biological quality, by the final decades of the nineteenth century they were coming to terms with the fact that relationships between language, culture, and 'race' were, to say the least, less straightforward or deterministic than previously assumed.[45]

Aubry was not oblivious to these objections – he engaged them. Following his rhetorical question, he continued:

> However, this point of view is seriously contested. A. Meillet, the knowledgeable professor...points out that the method of comparative grammar will not be applicable to musical languages any more so than it has been to mythology or to metre: attempts made in these two latter cases have been unfortunate, and could not have been otherwise.[46]

Aubry then quoted at length from what appears to be personal communication with Meillet. Meillet's argument went like so: Language may be subjected to legitimate comparative study because it is governed by hermetic systems which are unalterable through human intervention. Individuals cannot deliberately shape a language's grammar, or its morphological or phonological systems; such changes occur arbitrarily and spontaneously, irrespective of any

[44] These changes are intricately charted in Morpurgo Davies, *Nineteenth-Century Linguistics*, esp. ch. 10.
[45] See again, e.g., Salomon Reinach, *L'origine des Aryens: histoire d'une controverse*.
[46] Aubry, 'Le Système musical de l'église arménienne', 326; 'Pourtant, ce point de vue est sérieusement contesté. A. Meillet, le savant professeur du Collège de France et de l'Ecole des Hautes Etudes philologiques, nous fait observer que la méthode de la grammaire comparée ne sera pas applicable aux langues musicales, non plus qu'elle ne l'a été à la mythologie ou à la métrique: les essais faits dans ces deux derniers cas ont été malheureux et ne pouvaient pas ne pas l'être.' Meillet maintained a scepticism regarding the study of comparative religion which he addressed in *Introduction à l'étude comparative des langues indo-européennes* (e.g., 364–6). While Meillet did not name specific colleagues, he is referring to the scholarly tradition of comparative religion and mythology begun by Max Müller, which remained influential in France as elsewhere.

individual's fancy. Conversely, music lacks such a 'fixed core'. Aubry continued quoting Meillet:

> I do not see how music can in any aspect present a similar system of fortuitous circumstances escaping human will: that, and that alone, is what allows comparative grammar to exist as it does today. Failing proof to the contrary, I doubt that tonality and rhythm are sufficiently varied, sufficiently arbitrary, and sufficiently fixed to lend themselves to such a demonstration.[47]

However, Aubry countered by identifying a flaw in Meillet's reasoning. Meillet's error 'most likely comes from a confusion between music understood as artwork and music understood as popular inspiration. Yes, of course,' Aubry conceded, 'in the former case, music does not and cannot show a fixed core free of fantasy, because the fantasy is the work of art itself. But in popular song, I firmly believe things are different. There, you have a closed system. There, you have a fixed core…allowing comparative and scientific study.'[48] The distinction between 'art' and 'folk' music echoes the argument made by Émile Burnouf in his *Revue des deux mondes* article; moreover, Aubry continued, since liturgical chant, as he and many others believed, consisted essentially of sacred texts 'adapted to popular cantilenas' (a palimpsestic practice which he referred to as 'centonisation'), liturgical musics, too, could legitimately be studied – or better, compared – alongside popular song.[49]

However, even in rebutting Meillet's objection, Aubry took care to signal a distinction between what he was suggesting – the possibility of a musical Indo-Europeanism on the basis of music's internal structures – and previous theories of musical Indo-Europeanism on the basis of 'race'. Aubry now pushed back against Fétis, who had become something of a sacrificial lamb for the new musicological generation.

> If these cantilenas which sprouted from Latin, Greek, and Armenian soil present the common quality of diatonicism, can we not deduce that diatonicism conforms to the

[47] Quoted in ibid., 326–7; 'Je ne vois pas que la musique puisse en aucune partie présenter un pareil système de circonstances fortuites échappant à toute volonté humaine : c'est à cela, à cela seulement que la grammaire comparée doit d'exister, telle qu'elle existe aujourd'hui. Jusqu'à preuve précise du contraire, je douterai que la tonalité et le rythme aient assez de variété, assez d'arbitraire et assez de fixité pour se prêter à une démonstration.'

[48] Ibid., 327; 'Son erreur vient sans doute d'une confusion entre la compréhension musicale œuvre d'art et la compréhension musicale inspiration populaire. Oui, certes, dans le premier cas, la musique ne présente pas et ne peut présenter un noyau fixe, échappant à la fantaisie, puisque la fantaisie est l'oeuvre d'art elle-même. Mais dans le chant populaire, nous croyons fermement que les choses se passent autrement. Là, il y a un système fermé. Là, il y a ce noyau fixe, échappant à toute fantaisie, qui permet l'étude comparative et scientifique.'

[49] Ibid., 327–8.

> musical mindset of Latins, Byzantines, and Armenians, for example, without suggesting, as Fétis would have gravely put it, an example of the famed 'law of the musical capacity of races based on their cerebral anatomy'?[50]

Further distancing himself from Fétis, Aubry proposed therefore to 'set resolutely aside, for the moment, the great questions of race and origin', and to concentrate on the purely philological question of restituting an 'unknown musical civilisation'.[51] In distancing himself from questions of 'race', Aubry backtracks from previous assertions, and even contradicts remarks made earlier in this article – such as the framing of his interest in Armenia on the basis of its position in the 'grand family of Indo-European races, in the middle of nations of Semitic and Turanian origin', and of his belief in the specific 'musical sentiment' of 'Indo-European peoples'.[52]

Whether by hypocrisy or by insight, Aubry's attempt to refashion musical Indo-Europeanism as a quasi-linguistic phenomenon independent of 'race' likely reflects his supervening engagement with Meillet's teaching. Meillet, in his widely-read *Introduction à l'étude comparative des langues indo-européennes* (1903), was adamant that language is a historical phenomenon while 'race' is a physical one, and cautioned against conflating speakers of Indo-European languages with any essential physical attributes; on those grounds, Meillet, too, resolved to avoid any discussion of 'race' – as well as religion, culture, or practices – in the book.[53] This distinction was again parroted by Aubry in his *Esquisse d'une bibliographie de la chanson populaire en Europe* (1905): using many of Meillet's words and phrases (although without citing him), Aubry distinguished between physical 'race' (the domain of 'anthropology'), and language and 'civilisation'.[54] It is worth noting that Aubry's (and for that

[50] Ibid., 328; 'si ces cantilènes spontanément germées en terre latine, grecque et arménienne, présentent ce trait commun du diatonisme, ne peut-on pas en conclure que le diatonisme est conforme à la façon de penser musicalement chez les Latins, les Byzantins et les Arméniens, par exemple, sans qu'il y ait là, comme aurait dit gravement Fétis, un exemple de la fameuse "loi de la capacité musicale des races en raison de leur conformation cérébrale?"'

[51] Ibid; 'Nous nous proposons donc de laisser résolument de côté, pour l'instant, les grandes questions de race et d'origine, et d'appliquer la méthode comparative à un ensemble de civilisations musicales connues pour arriver à une civilisation musicale inconnue.'

[52] Aubry, 'Le Système musical de l'église arménienne', *La Tribune de Saint-Gervais* 8 (1902), 26

[53] Meillet, *Introduction à l'étude comparative des langues indo-européennes*, viii and 50–1.

[54] Compare ibid. and Aubry, *Esquisse d'une bibliographie de la chanson populaire en Europe*, 8. It has been suggested that Aubry was in effect killed by a more egregious case of plagiarism; see Haines, 'The Footnote Quarrels of the Modal Theory', 115–16.

matter, Meillet's) caveats do not bespeak disinterest in 'race', nor a disavowal of 'race' as a meaningful concept in itself.[55]

In a sense, therefore, Aubry's distinction is without a difference, although his lip service to linguistic, rather than 'racial', classification represents a rhetorical departure from several predecessors. By his 1905 publication, Aubry had substituted the 'racial' determinism of Fétis, Bourgault, Burnouf, and even Gevaert, with a linguistic determinism: stronger than correspondences between 'race' and language were the 'affinities between spoken language and sung language' – which, in turn, amounted to 'manifestations of the mentality of peoples'.[56] Whether 'mentality' ('vie psychique') constituted something innate or learned was left murky by Aubry; but the assimilation of music to language through song allows him to bypass questions of 'anthropology' in favour of the 'commodious framework' of 'comparative grammar'.[57] Thus Aubry explicitly organised his bibliography of folksong according to language families: first, the Indo-European (sub-divided into Greek, neo-Latin, Celtic, Germanic, Baltic ('letto-lituanien'), Slavic, and Armenian); followed by a short miscellany of Turkish, Finno-Ugric, Basque, and 'Caucasian' collections.

Aubry's transition toward linguistic determinism was accompanied by focused attention to the rhythmic intersection of language and music. Like Mocquereau, Aubry seized upon metre, believing it could link language and music via notions of phonological stress, poetic prosody, and rhythm (mensural or otherwise). The close overlap of these parameters across language and music again allowed Aubry to circumvent any question of 'race' – although perhaps also the present topic of chant restoration by nature intersected less obviously with the questions of 'race' and 'origin' that interested him elsewhere.[58] Aubry's clearest articulation of the

[55] Jean-Paul Demoule demonstrates that even Meillet's disclaimer was disingenuous, as the linguist's work evinces longstanding credence in certain essential characteristics and behaviours of speakers of Indo-European languages, even if he avoids the label of 'race' (*Mais où sont passés les Indo-Européens?*, 168–74). Among those involved in these early twentieth-century discussions of music, language, and 'race', I have encountered only one writer, philosopher Charles Lalo, who, in denouncing Fétis's theories in his *Esquisse d'une esthétique musicale scientifique* (1908), also refuted 'race' altogether: 'rien n'est aussi transportable et aussi souvent transplanté qu'un langage, surtout musical; rien aussi n'est plus contestable que l'idée de race' (244). I am grateful to Tadhg Sauvey for bringing this exceptional case to my attention.

[56] Aubry, *Esquisse d'une bibliographie de la chanson populaire en Europe*, 8; 'Nous croyons qu'il y a des affinités plus grandes entre la langue parlée et la langue chantée….toutes deux sont autant de manifestations de la vie psychique des peuples.'

[57] Ibid. 'contentons-nous d'accepter comme un cadre commode de classement les résultats reçus en grammaire comparée.'

[58] Another important contribution had come from the Polish philologist Maximilien Kawczyński, who published his *Essai comparatif sur l'origine et l'histoire des rythmes* in French in 1889 – a work which is also cited by

supposed relationship between spoken and sung language was developed in his 1903 monograph, *Le Rythme tonique* – dedicated, interestingly, to Meillet, who had argued (as quoted in Aubry's 1901 article) against the comparative analysis of metre.[59] *Le Rythme tonique* did not address Indo-Europeanism directly; rather, Aubry aimed to provide linguistic corroboration of the free rhythmic chant method advocated by the Benedictines at Solesmes over the competing theories of Antoine Dechevrens*, leader of a Jesuit order whose approach to plainchant restoration was mensuralist. However, in dedicating the volume to Meillet, perhaps Aubry had the additional (ulterior) motive of demonstrating the legitimacy of a comparativist approach to musical metre. Aubry unleashed his philological erudition in the second half of the volume. Rebutting Dechevrens' contention that scholars should look to modern-day eastern Orthodox chant traditions for insights into the history of Roman liturgical chant,[60] Aubry argued that the comparative study of the historical phonology of liturgical languages offered greater insight into their respective pasts. Bringing to bear linguistic studies of an extensive range of liturgical languages – from Latin and Greek to Armenian, Syriac, and Coptic – Aubry concluded that, at least by the early medieval period, the stress structures of these languages had become characterised by an accent of intensity – that is, syllabic stress marked by heightened volume – as opposed to stress marked either by the length of syllabic duration, or by a rise in pitch.[61] The 'accent tonique' of these liturgical languages was, he argued, the principle governing the rhythmic execution of chant across the various churches – what Aubry coined as 'rythme tonique' – including the Latin church by the time of Gregory.[62] According to Aubry, modern eastern church practices had lost whatever correspondence there had been between linguistic accent and chant rhythms due to exchanges

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Aubry. Kawczyński argued for a departure from the 'racial' essentialism which undergirded comparativist studies by Pictet, Grimm, and Westphal*.

[59] Aubry's dedication reads: Meillet 'nous permettra, en acceptant l'hommage de cette brochure, de lui donner un faible témoignage de gratitude, en souvenir de la bienveillance avec laquelle il a toujours accueilli nos essais musicologiques' (*Le rythme tonique*, 9).

[60] Dechevrens's argument, articulated in *Les vraies mélodies grégoriennes* (1902), is summarised by Aubry in *Le Rythme tonique*, 12. The thrust of the argument is that modern-day similarities in the chants of various 'eastern' church traditions suggested that their practices bore a close resemblance to chants in their 'original' state, as practised before the Schism and since 'lost' by the Latin church. On this basis, Dechevrens believed that current practices of the eastern churches, particularly regarding rhythm, should form the starting point for the restoration of original rhythmic practices in western chant. Responding in *Le Rythme tonique*, Aubry countered that, rather than any deep historical origin, the commonalities among eastern liturgical chants were attributable to a different, more recent cause: their absorption of (eighteenth-century) Ottoman influences, leading them to resemble 'une simplification, consciente ou spontanée, des rythmes compliqués de la musique turque' (*Le Rythme tonique*, 39).

[61] Aubry, *Le Rythme tonique*, 54; this argument had recently been developed with respect to Latin by Havet, and Joseph Vendryes, whose work Aubry also cited; see Havet, *Cours élémentaire de métrique grecque et latine*, 231ff; and Vendryes, *Recherches sur l'histoire et les effets de l'intensité initiale en latin*.

[62] Aubry, *Le Rythme tonique*, 77.

with neighbouring musical cultures, resulting in an absence of prosody whereby all notes became of equal value; the western church, in contrast, might have preserved a trace of this tonic imprint on its chant rhythms, and it was through philological study of the accent-structures of these languages that chant might be restored to its Gregorian state.[63] The key shift in Aubry's philological stance in *Le Rythme tonique*, compared to his previous speculations, is his application of philological comparativism to music via language, rather than to musical forms in isolation. While in his 1901 lecture he had posited the potential comparative analysis of musical 'modes' and 'rhythms', here he restricts his comparisons to the linguistic parameter, 'prior' to the extrapolation from language to music.

While Aubry emphasised his link to Meillet through intertextual gestures of citation and dedication, I have not located any references to Aubry in Meillet's writings (published or otherwise), making it difficult to know how Meillet rated Aubry's work or whether he was convinced by Aubry's argument.[64] Neither Aubry's nor Meillet's professional archives contain obvious traces of their relationship – although this is more likely an omission of record-keeping than a meaningful absence.[65] Meillet would return to the question of comparative metre and rhythm broached here by Aubry, but not until the 1920s, as we shall see below. Even so, the mounting philological attention to metre presaged a new source of musical-aesthetic potential, namely, a philologically mediated approach toward the ('re')unification of poetry and music – an ideal of formal coherence which the Greeks were thought to have epitomised, and toward which modern composers might strive. If modern composers, the Symbolists perhaps especially, had conceptualised various approaches to musico-poetic intermediality, philologists such as Havet and later Meillet, and musicologists such as Gevaert, Combarieu, and eventually, Emmanuel, suggested that the study of metre and rhythm from a historical linguistic perspective might offer additional, concrete, approaches toward this end in the decades that followed.[66]

Maurice Emmanuel. Although Emmanuel's name had figured beside Aubry's on the editorial masthead of Combarieu's *Revue*, the scholarly approaches of the two might be

[63] Ibid., 83–4.
[64] Francis Gandon notes that an exhaustive survey of Meillet's publications is 'practically impossible', given Meillet's prolific output, especially in terms of reviews (*Meillet en Arménie*, 21n2).
[65] The correspondence held in Meillet's professional archives (F-Pcfa) is mostly from after his appointment to the institution in 1906. Aubry's archives (F-Ps), in relative disarray, contain very little of his correspondence.
[66] Panegyres, 'Classical Metre and Modern Music', 219.

characterised as representing polar-opposite ideals of scientific positivism and artistic activism. Aubry's obsession with textuality and documentation, and lack of interest in contemporary musical composition, is captured in Combarieu's amicable jibe that Aubry did not even like music, only 'musical documents'.[67] Emmanuel, meanwhile, harboured creative ambitions alongside his scholarship, growing frustrated later in life with those who branded him 'historian' or 'archaeologist' rather than 'musician'. Their paths would collide head-on in 1909 when Aubry, on trial for having plagiarised Jean-Baptiste Beck, selected Emmanuel to serve as a member of the jury. When the jury returned a unanimous guilty verdict, Aubry largely blamed Emmanuel, and weaponised their contrasting approaches to scholarship in a vitriolic open letter: 'I wonder what services you may have personally rendered to French musicology, you who have never worked on source materials, you who have never opened a manuscript…'[68]

Emmanuel's most significant intellectual legacy is his research on ancient Greek music and dance. As with Bourgault-Ducoudray and others, Emmanuel's historiography of Greek music was postulated on an underlying 'racial' determinism, according to which ancient Greek music is defined in relation to its Indo-European 'ethnic' inheritance, compounded over time by its assimilation of or resistance to foreign encroachments. Emmanuel's interest in matters of 'race' and Indo-Europeanism has been discussed in Christophe Corbier's exhaustive study.[69] Corbier remarks that Emmanuel, like Gevaert and unlike Fétis, was largely loath to open the floodgates of ancient music history beyond and before Greece.[70] This was certainly the case in his earlier scholarship, in which there are no allusions to Indo-Europeanism: for example, it was 'only' with Greece that Emmanuel opened his two-volume *Histoire de la langue musicale* (1911), and there is no explicit mention of Indo-Europeanism in the major history of Greek music which Emmanuel published in 1913.[71] Yet, as we have seen, hellenism is often framed within notions of Indo-Europeanism that emerge in patches and

[67] Combarieu, reminiscing after Aubry's death, quoted in Campos, 'Philologie et Sociologie de la musique', 36–7; 'Aubry, ajoutai-je après avoir vidé mon verre, prenez garde à ce que je vais vous dire! Vous n'aimez pas la musique. Vous n'aimez que le document musical. Ce n'est pas la même chose.' Aubry responded, 'Je fais de l'histoire, et non de la critique. Je vous fournis des matériaux ; libre à vous de les apprécier comme vous voudrez!'
[68] Aubry, 'Lettre ouverte à M. Maurice Emmanuel sur la rythmique musicale des trouvères', *La Revue musicale*, 10 (1910), 261–70, at 269–70; 'Je me demande aujourd'hui, Monsieur...où sont les services que personnellement vous avez pu rendre à la musicologie française, vous qui n'avez jamais travaillé sur les sources, vous qui n'avez jamais ouvert un manuscrit…'. See also, Haines, 'The Footnote Quarrels'.
[69] Corbier, *Poésie, musique et danse*, 181–94.
[70] Ibid., 187.
[71] Emmanuel, 'Grèce (art gréco-romain)'.

glimpses; and explicit allusions to Indo-Europeanism would increase in Emmanuel's teaching and publications after World War One and throughout the 1920s. His investment in Indo-Europeanism is doubly inherited: through Bourgault-Ducoudray – in his capacity as Conservatoire history professor and his advocacy for the creative appropriation of Greek and folk musics, unified in Indo-Europeanist terms – and through Meillet, with whom he engaged in his own scholarship, especially after assuming his Conservatoire professorship. Revisiting Emmanuel's case here allows me to situate him in a broader context of philological and musicological collaborations, and to focus on how Meillet, in particular, was integral in shaping his views. Because of his dual scientific and artistic credentials and ambitions, Emmanuel, too, occupies a pivotal position in this study, linking together philological and musical worlds. To introduce Emmanuel, therefore, requires a brief recapitulation of his education and professional path, including his relationship to Bourgault and the Conservatoire, before examining the intellectual debts to Meillet that accrued later in his career.

Emmanuel's trajectory took many twists and turns. He entered the Conservatoire in 1880, joining Léo Delibes's composition class and Bourgault's history lectures. By the late 1880s he was also attending Gaston Paris's lectures at the Collège de France, and Havet's lectures on Greek metre at the Sorbonne – where Meillet would have been his classmate. He even dropped into meetings of the Cercle Saint-Simon and Dîners Celtiques.[72] Emmanuel's lack of success in Delibes's class (in part due to Delibes's conservative resistance to his compositional experimentation with 'modes' learned in Bourgault's courses) and ultimately at the Conservatoire, combined with an interest stirred by Bourgault's lectures toward the end of the decade, led him to pursue education in classical Greek philology and art history at the Sorbonne and the École du Louvre. Like Aubry, Emmanuel's thesis project disregarded disciplinary boundaries: drawing upon Havet's philology and the archaeological research of Edmond Pottier and Maxime Collignon, studying drawings of dancers preserved on ancient Greek pottery, and using chronophotography developed by Marey to capture still images of bodies in motion, Emmanuel attempted a reconstruction of ancient Greek dance. The innovative creativity of Emmanuel's project earned him widespread admiration, and his doctoral research, published as *La Danse antique grecque*, achieved an uncommon degree of

[72] Corbier, *Maurice Emmanuel*, 32, 61–2; on the Dîners Celtiques, see above, Chapter 2, note 76.

popularity, with Emmanuel speaking about his research across France.[73] In his recent study, Samuel Dorf draws particular attention to Emmanuel's intellectual debt to the 'German-influenced positivists' (such as Havet, Paris, Alfred Croiset, and Paul Girard), and casts Bourgault's imprint as comparatively minor. However, I am struck by the strong resonances with Bourgault's intellectual stance, even as Emmanuel grew distant from the Conservatoire during this period. Dorf describes Emmanuel's methodology as the 'transformation of dynamic gestures' of dancers into 'static images' of frozen choreographic poses, 'which he then reanimates through his scholarly writing into an imagined dynamic image of ancient dance'[74] – how different is this from Bourgault's methodology of song collection, of transforming song into 'static' transcriptions and modes, which he then 'reanimates' through his arrangements?

Nevertheless, Emmanuel immersed himself in the world of scholarship in the 1890s and 1900s, so much so that Corbier writes that it is 'nearly impossible to identify him as a composer' by 1910.[75] Unable to obtain a university post (with his prospects at the Collège de France having dissolved), he took up teaching 'comparative history of the arts' at two Parisian lycées from 1898 to 1904, when he was appointed maître de chapelle at the Église Sainte-Clotilde.[76] He kept in touch with his former professors, including Havet, and also with Meillet: congratulating his 'cher ami' on his own Collège de France appointment in 1906, Emmanuel deprecated himself, claiming to be 'perfectly incapable of following your beautiful work, but well informed of its value'.[77] Meillet, in turn, commiserated with Emmanuel over the Aubry affair, and sought his expertise when it came to their musicological peers, asking his advice on the appointment of Henry Expert to the École des Hautes Études.[78]

Even while his own compositional efforts were marginalised, Emmanuel maintained a foot in musical and musicological circles. If Emmanuel remained bitter toward Delibes, he found powerful role models in both Gevaert and Bourgault, admiring the unity of science and artistry they had achieved in their careers. According to Corbier, Emmanuel discovered Gevaert's scholarship through his *Origines du chant liturgique de l'église latine* (1890), and

[73] Dorf, *Performing Antiquity*, 83–5.
[74] Ibid., 88.
[75] Corbier, in Emmanuel, *Lettres choisies*, 28.
[76] Corbier, *Maurice Emmanuel*, 72–87.
[77] Letter [1906?], F-Pcfa, MLT 12-74_2; 'Bien que parfaitement incapable de suivre vos beaux travaux, je suis très renseigné sur leur valeur…'
[78] Emmanuel, *Lettres choisies*, 270–2.

felt that in Gevaert he had found 'the ideal of the artist-scholar, of the theorist capable of creation, of the humanist dedicated to the resurrection of Antiquity'.[79] In 1896, Emmanuel met Gevaert through the introduction of Gaston Paris.[80] And even though Emmanuel became aware of Bourgault's limits as an academic musicologist, he remained inspired by Bourgault's creative vision – in particular, his commitment to converting the principles of ancient modes and metres into modern music, and his sweeping vision of folksong as the living fossil of a distant musical past. The admiration was mutual, and both Gevaert and Bourgault offered Emmanuel crucial support in his early career, seeing in him the continuation of their scholarly and musical legacies. In addition to his letter of recommendation for the Collège de France in 1898, Gevaert bequeathed a selection of his papers to Emmanuel.[81] For Bourgault, the connection was even closer: writing his own reference for Emmanuel, Bourgault described his former student as 'a second me' ('un second moi-même').[82] Bourgault fought strenuously, and successfully, for Emmanuel to assume the history chair at the Conservatoire when Bourgault retired in 1909, describing him as 'the successor of my dreams'.[83] Emmanuel's appointment entrenched the unique nature of the role, moulded by Bourgault, as a bridge between scholarly and creative practice. When Bourgault retired, Combarieu characterised the particularity of the Conservatoire history professership, requiring someone of 'great authority, a philologist, lecturer, and *composer* all at once. Will we find such a rare bird?'[84] Fauré, director of the Conservatoire, made it a priority to preserve the creative-driven ethos of the history course, fearing the prospect of a 'universitaire' like Combarieu or Rolland;[85] Emmanuel seemed singularly equipped to satisfy these conditions.

As he grew into the professorship, Emmanuel proved himself a true believer in Bourgault's musical causes, propounding Bourgault's theories to yet another generation of students. In his 'Leçon d'ouverture' at the Conservatoire in 1909, Emmanuel declared his plan to 'pillage'

[79] Corbier, 'Le Maître et son disciple', 108; '...découvrait l'idéal du savant artiste, du théoricien capable de créer, de l'humaniste préoccupé par la résurrection de l'Antiquité'.
[80] Letter dated 31/iii/1896, F-ANT.
[81] Corbier, 'Le Maître et son disciple', 104.
[82] Letter dated 14/iii/1908, F-ANT.
[83] Letter dated 9/vi/1909, F-ANT; 'mon successeur rêvé'. Emmanuel's estimable opponent in this appointment was another figure trained in the study of language, the hellenist and sinologist Louis Laloy*; the fact that Emmanuel had studied at the Conservatoire, while Laloy had studied at the Schola, may also have tipped the balance in Emmanuel's favour.
[84] Combarieu, 'La succession de M. Bourgault-Ducoudray', *La Revue Musicale*, 9 (1/xi/1909), p. 1; 'Il faut donc un homme [sic] de grande autorité, philologue, conférencier, et *compositeur* à la fois. Trouvera-t-on cet oiseau rare?'
[85] Emmanuel, *Lettres choisies*, 257.

Bourgault's course: 'I, too, will take up the cause of ethnic music, of the music "of race"...'.[86] He trumpeted Bourgault's fight against what he termed the two 'tyrannies' – of major tonality, and of the barline – using a remarkable political metaphor to urge the creation of a variegated 'république modale'. And he alluded to the relationship between musical and linguistic development that long undergirded music historiography, affirming that 'the history of scales is the very history of language as sound'.[87] This belief was crystallised in the title of Emmanuel's own monument of music historiography, *Histoire de la langue musicale* – dedicated, posthumously, to Bourgault. In 1917, Emmanuel published his own collection of *Trente chansons bourguignonnes*. Here, the dedication is to Julien Tiersot* (a dedication Emmanuel would later regret[88]); but the debt to Bourgault, in both form and content, could not be clearer. In his own theoretical preface, Emmanuel echoed the refrain: 'What musical language did these songsters speak? I shall briefly explain a vital fact, the establishment of which these melodies bring one more proof, and that is: *the use, even today, of ancient modal scales in popular art*.'[89] In 1928, he published 'La polymodie' in *La Revue musicale*, a polemical article exposing a world of 'modal' possibility as an alternative to the 'tyranny of C major', crediting Bourgault as the pathbreaker.[90]

While at the Conservatoire, Emmanuel continued following Meillet's research. In 1912, he wrote to compliment Meillet on his article on 'new Indo-European languages found in Central Asia':

> It's made me regret being a fool, unable to follow such important questions more closely. Isn't there some book which has (silly me…) a sort of family tree of languages which would address my eyes with clarity, and from whose trunk I would see emerge and diverge the branches of the various languages. And is it even right to have everything emerge from a single trunk? It seems like no, and that in the final analysis, my tree would be at least 'two or three'. – Obviously such a stupid question

[86] Emmanuel, 'Leçon d'ouverture au Conservatoire', 25; 'Je suis décidé à vous piller. Je reprendrai pour mon compte l'apologie de la musique ethnique, de la musique "de race".'
[87] Ibid., 26; 'L'histoire des échelles est l'histoire même de la langue sonore.'
[88] See Emmanuel's diatribe against Tiersot (whom he punningly calls, 'M. sot', or Mr. Idiot), in a letter to Koechlin where he explains that by dedicating his volume to Tiersot, he had hoped, apparently in vain, to teach Tiersot a music lesson (*Lettres choisies*, 532–3). Tiersot, in opposition to Bourgault and Emmanuel's approach, had attempted reconciliations of folk music and tonality.
[89] Emmanuel, *Trente chansons bourguignonnes*, iii; 'Quelle langue musicale ces faiseurs de chansons parlent-ils? J'exposerai brièvement un fait capital, à l'établissement duquel ces mélodies apportent une preuve de plus, et qui est: *l'emploi jusqu'à nos jours, par l'art populaire, des antiques échelles modales*'.
[90] 'La polymodie', *La Revue musicale* (i/1928), 107–213. On Bourgault and polymodality, see below, Chapter 5.

> doesn't call for an answer. Some evening next winter, after supper, you'll give me a dose of linguistics… I feel that the mysteries of the human race are in your admirable studies. And I'm cursing myself for not being able to follow their majestic development.[91]

Emmanuel's scholarship, particularly in the period following this letter, began to embrace the Indo-Europeanist project more vocally than in his previous work. This interest is especially evident in a 1919 article titled, 'Le corps de l'harmonie d'après Aristote', published not in a musicological journal but in the *Revue des études grecques*. Emmanuel argued that 'Indo-European modes', despite their variation, share a common structure based on perfect intervals which he defines as 'le corps de l'harmonie'. Analysing Greek modes alongside a collection of 72 Indian modes recently published by Joanny Grosset (discussed in Chapter 4), Emmanuel acts as comparative philologist, deconstructing the modes into their tetrachordal components to facilitate comparison, as though they were musical morphemes. On this basis, Emmanuel concludes that 'the "corps de l'harmonie" appears to be one of the most robust traditions of the aryan race', aspects of its structure found 'from India to Wales'.[92] (I return to Emmanuel's argument in this important article in greater detail in Chapter 7.) Corbier suggests that 'le corps de l'harmonie' was Emmanuel's attempt to 'transpose' into musical terms Meillet's own conclusions from his *Aperçu d'une histoire de la langue grecque* (1913) – a copy of which Meillet had sent to Emmanuel after its publication.[93] After all, Meillet's *Aperçu* begins with a chapter on 'the Indo-European origins of Greek', situating Greek along the broader linguistic genealogy – not too far off from the 'family tree' that Emmanuel imagined – and Emmanuel must have been especially interested in Meillet's turn to the Greek language. While I find Corbier's interpretation logical and likely correct, I note Emmanuel's divergence from Meillet concerning 'race'. Just as in his *Introduction à l'étude comparative des langues indo-européennes* (1903), in the opening pages of his *Aperçu*, Meillet again sets aside notions of 'race', writing that 'the notion of race is not to be confused either with that of nation or that

[91] Emmanuel, *Lettres choisies*, 291; 'Cela m'a donné le regret d'être un âne et de ne pouvoir m'intéresser de plus près à des questions si hautes. N'existe-t-il pas un ouvrage où (admirez ma sottise…) une sorte d'arbre généalogique des langues parlerait à mes yeux avec clarté, et du tronc duquel je verrais sortir et diverger les rameaux des parlers divers. Et d'abord est-on à même de tout faire sortir d'un unique tronc? Je crois comprendre que non et que, en dernière analyse, mon arbre serait au moins "deux ou trois". – Il va de soi qu'une question aussi bête n'appelle pas de réponse. Un soir de l'hiver prochain, après la soupe, vous m'administrerez une teinture de linguistique… Je sens que les arcanes de la race humaine sont dans vos admirables études. Et je peste de ne pouvoir en suivre le majestueux développement.'

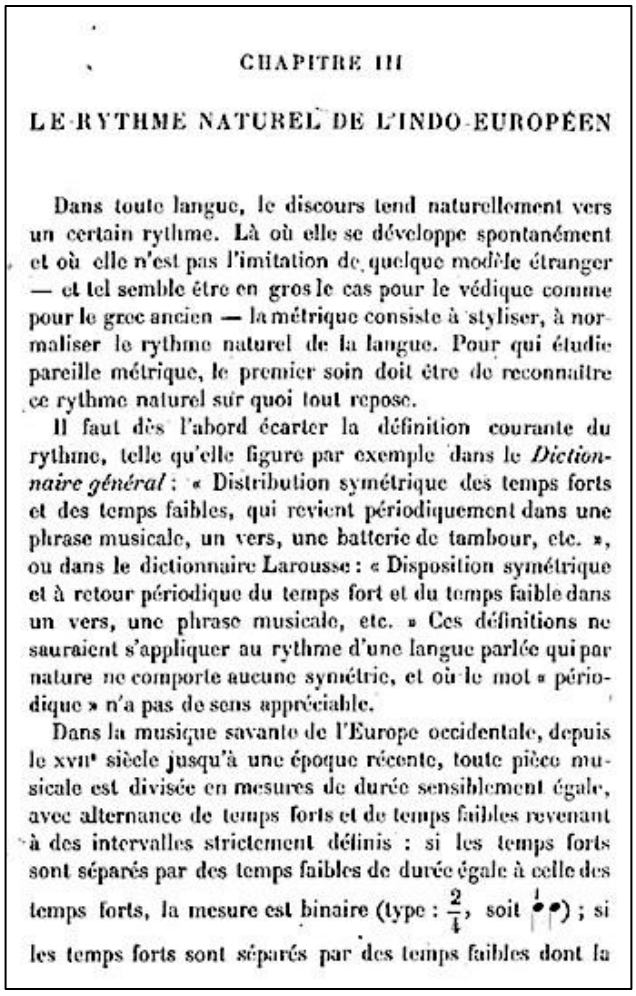
[92] Emmanuel, 'Le Corps de l'Harmonie d'après Aristote', 184; also quoted in Corbier, 193.

[93] Corbier, *Poésie, musique et danse*, 193; Emmanuel, *Lettres choisies*, 291n178.

of language'.[94] However, in his writing on music, Emmanuel disregarded this caveat, and reaffirmed notions of 'race' as a root cause of musical 'modality'. If Emmanuel's continued recourse to 'racial' essentialism contravened recent linguistic wisdom, Meillet's insistent separation of 'race' from notions of Indo-Europeanism in multiple volumes suggests how persistent and widespread the conflation remained. Emmanuel's appropriation of Meillet's work, therefore, was selective, yet another case of 'piggybacking' musical history onto Romantic presumptions of linguistic and human history. Moreover, vague precepts of racialised Indo-Europeanism appear to have infiltrated Emmanuel's Conservatoire history courses during the 1920s, although the details of what he covered are sketchy; based on notes for his 1922 course, Emmanuel began his lecture on 'rhythm' with the 'Hellenes', described in the opening sentence as 'aryans who were influenced by all manner of Asians, both aryans and semites'. Later, he introduced the Persians with reference to Zoroastrianism and the Avesta, and remarked on the coexistence of 'les Races Aryas et Sémites' on the 'Iranian plateau'.[95]

In the mid-1920s, Emmanuel again turned to Meillet's work – this time more explicitly and more intricately – shifting focus, as Aubry had done previously, from 'mode' to 'metre' at the intersection of poetry and music. The impetus was a relatively minor opuscule of Meillet's on *Les Origines indo-européennes des mètres grecs*, published in 1923.[96] In it, Meillet set out to determine certain principles of 'Indo-European rhythm' through the comparative study of Greek and Vedic metres (Fig. 3.3). Meillet had earlier denounced the legitimacy of a comparative study of metre, as Aubry had recalled; with this publication, therefore, Meillet superseded his prior reservations. He did so by asserting that linguists' conception of early Greek metre, premised on the periodic recurrence of feet, was fallacious – and, most remarkably, that this fallacy could be blamed on shortcomings of contemporary musical culture. By reconceiving Greek metre in light of Indo-European linguistics, Meillet argued, the comparative philological study of metre (and, by a sort of oblique implication, modern musical composition) could be rectified.

[94] Meillet, *Aperçu d'une histoire de la langue grecque*, 8; 'La notion de race ne se confond pas avec celle de nation ni avec celle de langue.'
[95] F-ANT, dossier 'cours no. 38. Antiquité. Cours de 1922. Harmonistes et classes de composition. "Rythmique"'.
[96] Emmanuel's reading of Meillet's 1923 tract is briefly discussed in Corbier, *Poésie, musique et danse*, 260–1; and Panegyres, 'Classical Metre and Modern Music, 224.



CHAPITRE III

LE RYTHME NATUREL DE L'INDO-EUROPÉEN

Dans toute langue, le discours tend naturellement vers un certain rythme. Là où elle se développe spontanément et où elle n'est pas l'imitation de quelque modèle étranger — et tel semble être en gros le cas pour le védique comme pour le grec ancien — la métrique consiste à styliser, à normaliser le rythme naturel de la langue. Pour qui étudie pareille métrique, le premier soin doit être de reconnaître ce rythme naturel sur quoi tout repose.

Il faut dès l'abord écarter la définition courante du rythme, telle qu'elle figure par exemple dans le *Dictionnaire général* : « Distribution symétrique des temps forts et des temps faibles, qui revient périodiquement dans une phrase musicale, un vers, une batterie de tambour, etc. », ou dans le dictionnaire Larousse : « Disposition symétrique et à retour périodique du temps fort et du temps faible dans un vers, une phrase musicale, etc. » Ces définitions ne sauraient s'appliquer au rythme d'une langue parlée qui par nature ne comporte aucune symétrie, et où le mot « périodique » n'a pas de sens appréciable.

Dans la musique savante de l'Europe occidentale, depuis le XVII[e] siècle jusqu'à une époque récente, toute pièce musicale est divisée en mesures de durée sensiblement égale, avec alternance de temps forts et de temps faibles revenant à des intervalles strictement définis : si les temps forts sont séparés par des temps faibles de durée égale à celle des temps forts, la mesure est binaire (type : $\frac{2}{4}$, soit ♩ ♩) ; si les temps forts sont séparés par des temps faibles dont la

Figure 3.3: Meillet's chapter on 'Natural Indo-European Rhythm' wherein he redefines how 'rhythm' itself is conceived (*Les Origines indo-européennes des mètres grecs*, 19)

A glance at some of the especially musical moments of Meillet's argument will demonstrate their significance for Emmanuel's thought. Meillet began by reviewing the three types of linguistic accent: intensity, pitch, and duration. The 'rhythm of Indo-European', he asserted, consisted of 'differences of quantity' (i.e., duration, as opposed to intensity or pitch), between syllables.[97] This preliminary assertion, that 'Indo-European rhythm' is 'quantitative' rather than 'intensive', was already familiar – and in the second edition of his *Introduction à l'étude comparative des langues indo-européennes* (1908), Meillet had evoked a musical metaphor to illustrate the point, explaining that the rhythm of Indo-European was 'not organised around a peak of intensity, as in German, English, or modern Russian, or like the notes of a musical motif performed on the piano; they varied only in pitch and duration, like the notes of a motif

[97] Meillet, *Les origines indo-européennes des mètres grecs*, 8.

performed on the harmonium or organ.'[98] In the 1923 volume, Meillet continued invoking music to illustrate his theory. He argued that the principal impediment to linguists' understanding of ancient Greek metre was caused by their presentist understanding of 'rhythm', drawn from modern European music. Meillet cited contemporary dictionaries, which defined musical 'rhythm' as 'periodic' and 'symmetrical'.[99] Such a conception of rhythm could not apply to the 'metre' of Vedic Sanskrit and ancient Greek, which emerged as stylised renditions of the 'natural rhythm' of the language, and therefore cannot be any more 'periodic' or 'symmetrical' than spoken language. Studies of ancient Greek (and Vedic) metre must therefore begin by escaping these standard definitions of 'rhythm'.[100]

This reappropriation of the notion of 'rhythm' had significant implications, both for the study of language and metre, and for the practice of music. Regarding the study of language, Meillet proposed his new approach to thinking about Greek metre: not in terms of consistent, periodic feet, but rather in terms of certain brief sequences of short or long syllables occupying fixed positions, surrounded by more or less free strings of syllables.[101] Once reconceived this way, Meillet argued, it became legitimate, and fruitful, to compare Greek metres to Vedic metres, and to deduce conclusions about 'Indo-European' rhythm. Regarding musical practice, Meillet echoed his earlier metaphor, suggesting that the music of Bach, for example, with rhythms that were certainly not rigid or regular when performed on the organ or harpsichord, was 'presented' misleadingly as such through notation. The rise of 'strict [isochronous] rhythms,' which he blamed principally on the 'Italian style' (reviving a longstanding prejudice documented in his journal entries), had engendered a reliance on the barline. Meillet was scathing in his attitude toward this kind of rhythmic regularity, expressing himself in a haughty tone again reminiscent of his surlier journal entries: 'the more basic a music, destined for a public ignorant of any musical instruction, then the more its rhythm is regular, and the more brutally it is emphasised'. He contrasted the rhythmic simplicity of recent centuries of 'musique savante' in this regard with the music of 'half-civilised' peoples, which, 'neglecting

[98] Meillet, *Introduction à l'étude comparative des langues indo-européennes*, deuxième édition, 117–8; 'Les syllabes du mot indo-européen ne se regroupaient donc pas autour d'un sommet d'intensité comme en allemand, en anglais, en russe moderne, ou comme les notes d'un motif musical exécuté sur un piano; elles variaient seulement de hauteur et de durée, comme les notes d'un motif exécuté sur l'harmonium ou l'orgue.' The metaphor is absent from the first edition (1903).
[99] Meillet, *Les origines indo-européennes des mètres grecs*, 19.
[100] Ibid., 8.
[101] Ibid., 31.

melodic counterpoint, makes widespread use of rhythmic counterpoint'.[102] Meillet did not define exactly what he meant by 'rhythmic counterpoint'; but, as if to propose a course of action for modern composers, he nonetheless wrote: 'now we know that we can write music, varying rhythms and counterpointing them'. In addition to the rhythm of the ancients, he cited the 'free rhythm' of Gregorian chant as further evidence that barlines were a relatively recent, and insidious, contrivance.[103] Reviewing the publication, linguist Albert Cuny observed that Meillet's hypothesis was facilitated by his 'profound knowledge, both practical and theoretical, of the entire field of modern music'.[104]

Given the musicality of Meillet's work, it is easy to understand its appeal for Emmanuel. He adapted several of Meillet's precepts for a conference paper titled, 'Le "rythme" d'Euripide à Debussy', delivered at the *Premier congrès du rythme* organised by Emmanuel's friend, composer and pedagogue Émile Jaques-Dalcroze, in Geneva in 1925.[105] Emmanuel repackaged Meillet's theories for an international, interdisciplinary audience – to 'great success', as he recounted to Meillet in a letter.[106] He summarised Meillet's description of Greek and Vedic rhythm, translating poetic metres into crotchets and quavers and arguing that the '*evolution of Rhythm is linked to that of language*'.[107] He described the implications of Meillet's theory for the analysis of Greek verse, including admitting when those findings contradicted his previous work on Greek music. Then, Emmanuel turned from poetry to music, reiterating Meillet's critique of modern music's reliance on 'strong beats', and proposing to redefine rhythm as '*the organisation of duration*,' in contrast to periodicity.[108] On this basis, Emmanuel charted a history of rhythm in five stages, designed roughly to

[102] Ibid., 20; 'Plus une musique est élémentaire et destinée à un public dénué d'instruction musicale, plus le rythme y est régulier, plus brutalement il y est marqué.'; 'la musique de beaucoup de demi-civilisés, négligeant les contrepoints mélodiques, emploie largement les contrepoints rythmiques.' In complicating one discourse of western musical supremacy by his critique of rhythm, Meillet feeds into another in his association of rhythmic complexity and 'primitivism'; see, e.g., Agawu, 'The Invention of "African Rhythm",' in *Representing African Music*, ch. 3. Although the remark is effectively racist (at best, ethnocentric), Meillet would likely have distinguished his reference to 'civilisation' (the realm of 'culture') from notions of 'race' (the realm of biology).
[103] Ibid., 30; 'On sait maintenant qu'on peut écrire de la musique en variant les rythmes et en les contrepointant.' The parallels between Meillet's redefinition of 'rhythm' and rhetoric later used by Olivier Messiaen are too striking not to flag here, in passing. I shall return to some of these parallels, for which Emmanuel was doubtless the conduit, in Chapter 8.
[104] Review by A. Cuny in *Revue des études anciennes*, 26/2 (1924), 168–70 at 168–9.
[105] Emmanuel's talk was published in the conference proceedings, but may have been more widely read in serialised form in *Le Monde musical*, 8–9 (September, 1928) et seqq.
[106] Letter dated 7/xii/1926, F-Pcfa, MLT12-74_3.
[107] Emmanuel, 'Le "rythme" d'Euripide à Debussy', 110–11; '*L'évolution de la Rythmique est liée à celle du langage*' [Emmanuel's emphasis].
[108] Ibid., 141; '*l'organisation de la durée*'.

parallel the presumed development of phonological stress between Vedic Sanskrit and the early Romance languages (I paraphrase slightly):

1. *Crude rhythm*, with regular periodic percussive emphasis, derived from walking and running; this still exists and always will;
2. *Refined rhythm*, non-isochronic, based on the number of syllables in a verse; in Indo-European languages, accented melodically, in which case syllables have unequal durations of single or double lengths; as in languages where the distribution of durations remains unimportant (Sanskrit, Greek, Latin);
3. *Same as above*, without percussive emphasis, but systematised little by little, wherein the number of syllables gives way to their durations; but in which periodicity, though sometimes present, is not needed or valued;
4. *Opulent rhythm*, which we could call integral, where all three above coexist. It is consecrated in the union of the three musical arts [poetry, music, and dance]. This is the Greeks' rhythm in the 5th century BCE. Isochronism plays a secondary role, foursquare metre is exceptional;
5. *Indigent rhythm*, founded on the ruins of (4), tyrannised by rudimentary arithmetic due to the model of new speech patterns with intensive accents; consecrated in a notation that exclusively captures factors of two or three, and bearing the weight of five or six centuries of habit; essentially *isochronous* and *square*. That's ours.[109]

Emmanuel then considered the state of modern music. Where Meillet had credited Wagner with having challenged the rhythmic laziness of French music, Emmanuel instead elevated 'a French musician' – Claude Debussy. If Debussy had produced confusion and even

[109] Ibid., 141–2; 'Il semble qu'a travers le temps, on puisse discerner:

une *Rythmique fruste*, à percussions isochrones, issue de la marche et de la course; toujours vivante et qui le restera;

une *Rythmique affinée* déjà, non isochrone, reposant sur le nombre des syllabes du vers, dans les langues indo-européennes, accentuées mélodiquement, où ces syllabes ont des durées inégales, allant du simple au double; syllabes dont la répartition demeure indifférente (sanskrit, grec, latin);

une *Rythmique du même ordre, sans percussions*, mais peu à peu systématisée, où le nombre des syllabes cède le pas à leurs durées; mais où l'isochronisme, pratiqué par endroits, n'est ni une nécessité ni une vertu;

une *Rythmique opulente*, que l'on pourrait dire intégrale, où les trois précédentes se rejoignent et coexistent. Elle consacre l'union des trois arts musicaux; elle ne révèle tous ses secrets que par les gestes orchestiques. C'est la rythmique des Grecs, au V^{e} siècle avant notre ère. L'isochronisme y joue un rôle secondaire, la carrure y est exceptionnelle;

une *Rythmique indigente*, fondée sur les ruines de la précédente, tyrannisée par une arithmétique rudimentaire du aux modèles créés par les parles nouveaux, à syllabes accentuées explosives; consacrée par une notation faite pour les facteurs Deux ou Trois exclusivement, et pesant encore de tout le poids que lui confèrent cinq ou six siècles d'habitudes perpétuées; essentiellement *isochrone* et *carrée*. C'est la nôtre.' [Emphasis Emmanuel's].

indignation with what was perceived as his nebulous, structureless treatment of the French language in *Pelléas et Melisande* at the beginning of the century, Emmanuel found a new way to valorise Debussy's prosodic technique. Refining the efforts of Louis Laloy* (two decades earlier) to defend the prosody of *Pelléas* as an 'exact image of Latin and French speech', Emmanuel offered a detailed analysis, now with reference to comparative linguistics.[110] The French language, he argued, having (unlike Latin, in fact) 'attenuated' the accents of 'intensity' that had characterised Romance languages early on, could thus 'tolerate a voluntarily monotonous declamation'; it is for having 'taken advantage' of this quality particular to the French language that Debussy found himself critiqued by unimaginative audiences. Yet with respect to French, Debussy had proved himself, Emmanuel argued, 'a reincarnation of Euripides'.[111] Emmanuel reiterated this suggestion in his monograph-length analysis of *Pelléas* (published the same year as the Rhythmic Congress), but this time raised a question: how could Debussy – who wrote *Pelléas* having never attended Bourgault-Ducoudray's lectures or studied ancient music (or even the folk music which bore its trace) – have so astutely put such principles into practice? Debussy's success, Emmanuel finds, is 'less attributable to scholarly research than to one of those fortuitous findings…which revives "a bit of the old soul of our race"…'.[112] Thus, rather than using the relationship between prosody and music as a means to bypass 'race' (as Meillet and Aubry had), Emmanuel sees the relationship, as exemplified by Debussy, as another proof of its conceptual validity.[113] Finally, at the end of his Geneva address, Emmanuel incarnated the spirit of Bourgault, urging composers to pursue the path which Debussy had opened.

Emmanuel called 'Le "rythme" d'Euripide à Debussy' his 'testament' on the subject of rhythm and metre.[114] Upon its publication, Meillet wrote to Emmanuel expressing gratitude

[110] Laloy, 'Le drame musical moderne: Claude Debussy,' *Mercure musical*, 1/viii/1905, 239; 'image exacte de la parole latine et française'. On Laloy's role in shaping the reception of *Pelléas*, see Kelly, 'Debussy and the making of a "musicien français"', 61–4; and Kieffer, *Debussy's Critics*, ch. 4, esp. 197–215. Laloy, too, had made a study of ancient Greek rhythm in the final chapter of his own thesis, *Aristoxène de Tarente et la musique de l'antiquité*; unlike several of his peers, Laloy made little reference to the work of linguists or philologists in his study.
[111] Emmanuel, 'Le "rythme" d'Euripide à Debussy', 140.
[112] Emmanuel, *Pelléas et Mélisande de Debussy: Étude et analyse*, 90; 'c'est moins par une recherche savante que par une de ces trouvailles heureuses dont Louis Laloy a signalé la portée et qui ressuscitait "un peu de la vieille âme de notre race…".'
[113] Emmanuel's insinuation that Debussy put into practice principles preached by Bourgault is amusing in light of Bourgault's anticipated reaction to *Pelléas*, disclosed in a letter to Étienne Destranges: 'je suis sûr à l'avance que j'en admirerai le talent sans en aimer l'ordonnance. Soyons originaux, si nous pouvons! Mais ne renonçons pas à toute simplicité!' (Letter dated '2 juin', F-Nm, Ms. 2643).
[114] Emmanuel, *Lettres choisies*, 452.

and praise (while admitting to not having had time to read the study closely): 'It is a great honour for me to be associated with your beautiful study. And, since I have to write a review of the volume, I'll be able to tell linguists that they must read it.'[115] I have not located this review, if Meillet ever wrote it. However, in the same letter Meillet offered Emmanuel concrete evidence of his esteem, suggesting that Emmanuel might propose himself for the chair at the Académie des inscriptions et belles lettres left vacant by the death of Théodore Reinach*. The prospect of entering the Institut via the Académie des inscriptions, rather than by the Académie des beaux-arts (where his candidacy had previously been suppressed by Widor) amused Emmanuel – particularly arising the same year that his opera *Salamine* premiered at the Opéra.[116] The fact that he had plausible claims to enter both Académies (notwithstanding the fact that he ultimately entered neither) reflects an ambivalence between the identities of 'scholar' and 'composer' that dogged Emmanuel.[117] We might read Emmanuel's disciplinary discontent as yet another way he followed in Bourgault's footsteps: as Emmanuel once recounted: 'The day I succeeded dear Bourgault-Ducoudray, who had a head full of ideas, he said to me: "Old boy, here you go, a tag on your back: Professeur. You're screwed!"'[118] This disciplinary ambivalence, however, is of critical importance to the history told in this thesis: in Part II, scholar-composers such as Bourgault and Emmanuel will be shown to integrate their scholarly and compositional work, while managing their rhetoric to either emphasise, or subdue, the public perception of their work as 'scientific' or 'artistic'. What is certain is that Emmanuel brought Meillet's ideas into the Conservatoire (Fig. 3.4), where at least one young composer, Olivier Messiaen, was listening attentively.[119]

[115] Letter dated 18/xi/1928, F-ANT; 'Ce m'est un grand honneur d'être associé à votre belle étude. Et, comme je dois rendre compte du volume, je pourrai dire aux linguistes qu'ils doivent vous lire.'
[116] Emmanuel, *Lettres choisies*, 461.
[117] Late in life, Emmanuel recounted a biographical narrative by which he had for his entire life pursued a career as a composer, yet had been compelled to 'resort' to scholarly activities to make a living after his dismissal from Delibes's class. Corbier has shown how this narrative was largely a retrospective construction, fabricated by Emmanuel, particularly following his appointment at the Conservatoire (see Introduction to Emmanuel, *Lettres choisies*, 26–36). If, in the surroundings of the Conservatoire, Emmanuel shed the façade of erudition that might have compromised his 'artistic' credibility in the eyes of some (as he wrote to Saint-Saëns in 1920, 'I am not a scholar'), as Corbier points out, Emmanuel remained involved in scholarly networks throughout these decades: that he was, in consecutive years, president of the Association pour l'encouragement des études grecques (1922–23) and of the Société des compositeurs de musique (1923–25) exemplifies his commitment to both circles.
[118] US-AUS, box 291.2, 'Maurice Emmanuel', undated letter to Émile Vuillermoz [1930s]; 'Le jour où j'ai succédé à ce cher Bourgault Ducoudray qui était une tête riche d'idées, il m'a dit: "mon vieux, vous voilà, dans le dos, étiqueté: Professeur. Vous êtes f…u!"' (the letter is not reproduced in *Lettres choisies*).
[119] Some of Emmanuel's notes for his Conservatoire lectures are preserved at F-ANT (e.g., dossier 'Histoire de la Musique, Résumés, 1930–1931, 1931–1932); he talks about modes, metres, and occasionally, linguistic accent.

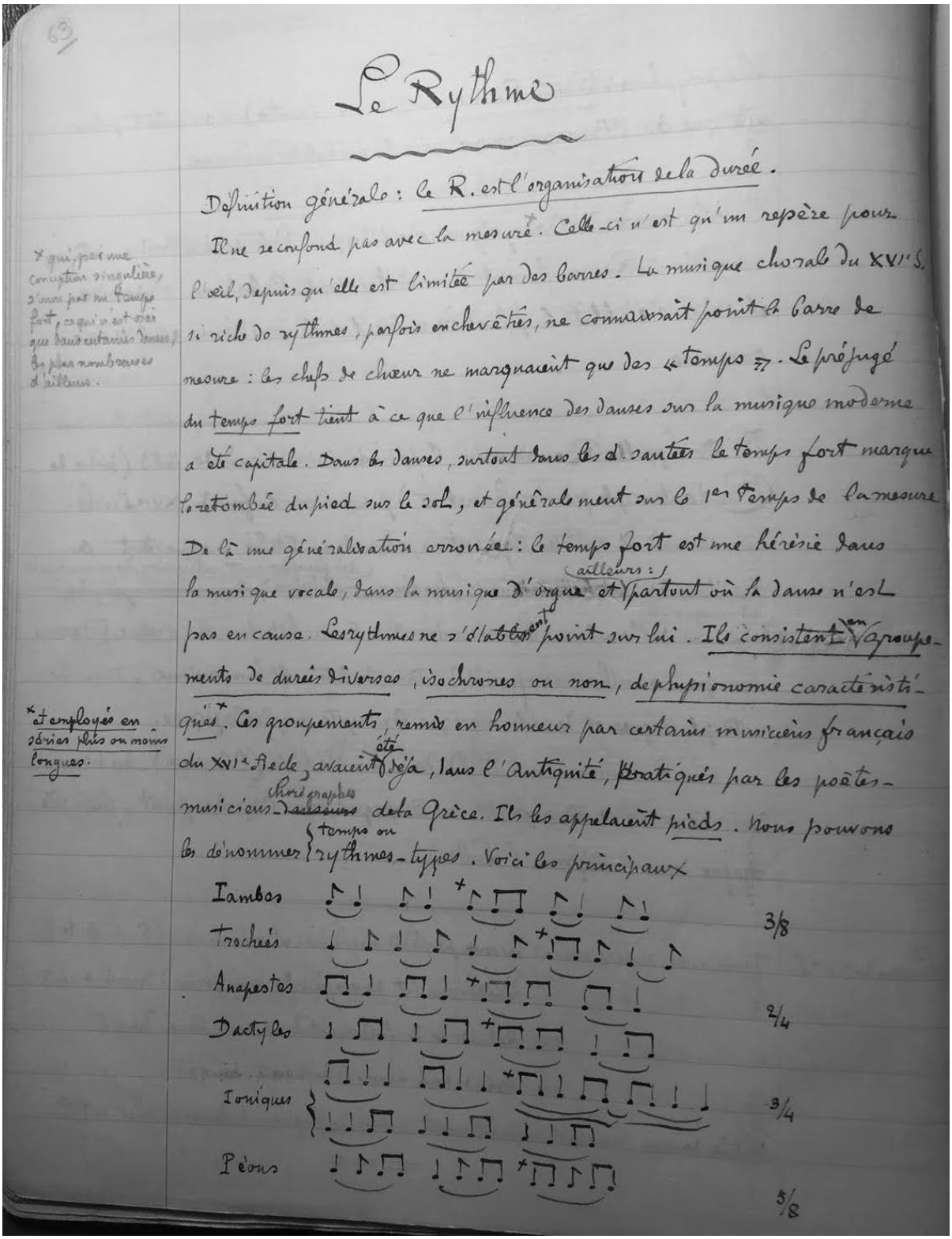


Figure 3.4: Maurice Emmanuel's music history lecture notes (most likely 1931), featuring his redefinition of metre following Meillet: 'le R. est l'organisation de la durée.'
Photographed by the author, F-ANT.

Conclusion.

In the second volume of his *Nombre musical grégorien*, published in 1927, that founder of 'musical philology' André Mocquereau brought into a musicological study just the kind of linguistic family tree that Emmanuel had dreamt of fifteen years before in his letter to Meillet (Fig. 3.5). As part of his ongoing efforts to pin down Latin prosody at the time of Gregorian codification, Mocquereau traced the history of linguistic stress – from proto-Indo-European, through Sanskrit, various Hellenic dialects, the 'Italic branch', right through to Latin, itself divided into four stages: archaic, classical, ecclesiastic, and Romance.[120] At each stage, Mocquereau cites passages from a familiar cast of characters, including Meillet, Havet, Vendryes, Salomon Reinach*, and Victor Henry. It is a thorough compilation of historical-linguistic research, with the single-minded goal of restoring Gregorian rhythm. Yet perhaps the ever-finer distinctions and periodisations Mocquereau delineated in linguistic history ought to have prompted him to consider that the linguistic, and musical, fixity he desired to establish never in fact existed.

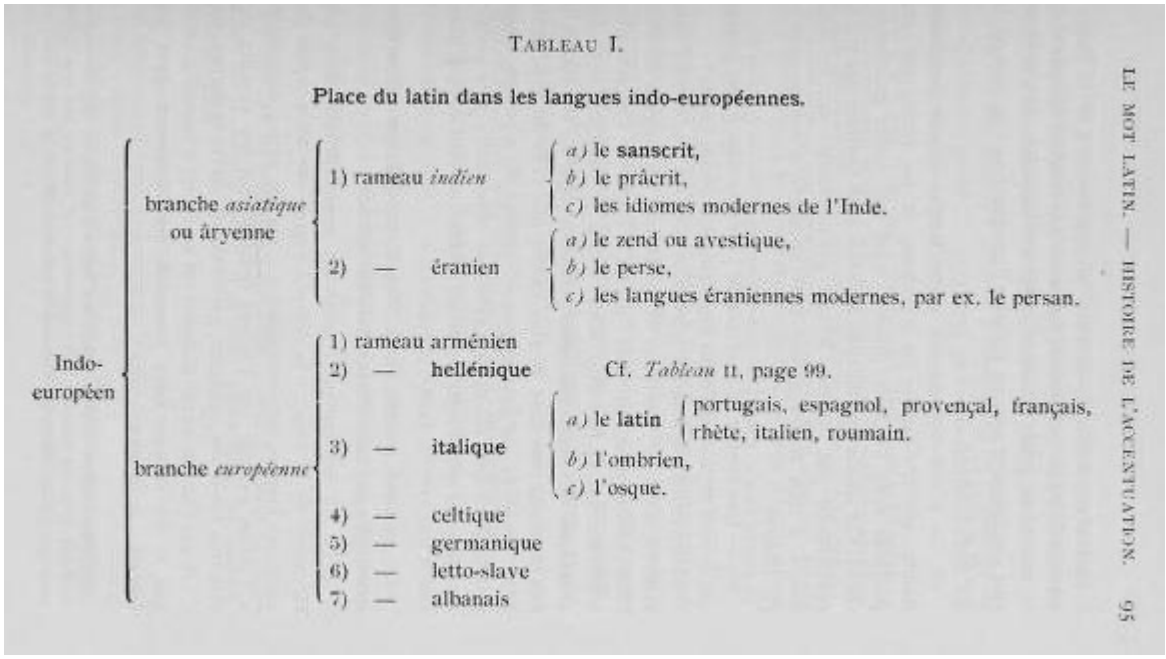


TABLEAU I.

Place du latin dans les langues indo-européennes.

- Indo-européen
  - branche *asiatique* ou âryenne
    - 1) rameau *indien*
      - *a)* le **sanscrit**,
      - *b)* le prâcrit,
      - *c)* les idiomes modernes de l'Inde.
    - 2) — éranien
      - *a)* le zend ou avestique,
      - *b)* le perse,
      - *c)* les langues éraniennes modernes, par ex. le persan.
  - branche *européenne*
    - 1) rameau arménien
    - 2) — **hellénique** — Cf. *Tableau* II, page 99.
    - 3) — **italique**
      - *a)* le **latin** | portugais, espagnol, provençal, français, rhète, italien, roumain.
      - *b)* l'ombrien,
      - *c)* l'osque.
    - 4) — celtique
    - 5) — germanique
    - 6) — letto-slave
    - 7) — albanais

LE MOT LATIN. — HISTOIRE DE L'ACCENTUATION. 95

Figure 3.5: Mocquereau's linguistic tree in *Le Nombre musical grégorien* (II, 95).

Meanwhile, the discipline of linguistics was transforming, turning increasingly away from diachronic study of language evolution toward synchronic study of language structure. This shift was galvanised most enduringly by Saussure's posthumously published *Cours de*

[120] Mocquereau, *Le Nombre musical grégorien, ou rythmique grégorienne*, II, 93–117.

linguistique générale, in which he criticised Boppian comparativism for failing to distinguish between 'letter and sound', or between linguistic 'states and successions'.[121] Yet even before Saussure's 'general linguistics', the dissociation of phonology from textuality was already emerging – prompted not least by the observation of wide variances in the pronunciation of French-speakers – suggesting that even linguistic essentialism was slippery. In 1890, Paul Passy had written that '*every individual speaks a particular dialect, which they are the only person in the world to speak*… We must even say that every individual speaks *many dialects* according to circumstance, or even, to be completely rigorous, *an infinity of dialects*.[122] Jean-Pierre Rousselot, who had trained in philology with Bréal and Paris, and had also studied Marey's chronophotography, was a major figure in the development of 'experimental phonetics'. Rather than using ancient texts as proxies for comparing phonology over the long term, Rousselot developed instruments and techniques to transcribe, in real-time, the speech of experimental subjects, thus enabling phonological comparison between individuals. Such disciplinary shifts did not mean that musicologists and musicians ceased working with linguists; on the contrary, Katherine Bergeron has demonstrated how linguists like Rousselot interfaced with musicians, shaping the conception and performance of speech, song, and *mélodie* in particular.[123] And Philippe Cordereix and Jann Pasler have begun researching how linguists like Hubert Pernot (a colleague of Rousselot's and director of the new Institut de phonétique) undertook projects alongside anthropologists and musicologists like Mady Humbert-Lavergne, to record songs at the Exposition coloniale of 1931 for phonological study.[124] Such studies put into relief comparative philology's distinct mediating role in the context of music's ongoing encounter with linguistics. And even after comparative philology's gradual eclipse into scientific obsolescence, its impact continued to resound throughout culture in ways we shall continue to examine.

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[121] Saussure, *Cours de linguistique générale*, 46; 118. Saussure also commented on the fallacy of linking language and 'race', although again without disavowing 'race' as such, and replacing (or better, deferring) it with a more nebulous 'ethnisme' (304–6).

[122] Passy, *Étude sur les changements phonétiques et leurs caractères généraux*, 10–11; '*chaque individu parle un dialecte particulier, qu'il est seul au monde à parler*… Il faudrait donc dire que chaque individu parle *plusieurs dialectes* selon les circonstances, voire même, pour être tout à fait rigoureux, *une infinité de dialectes*...' [Passy's emphasis].

[123] Bergeron, *Voice Lessons: French Mélodie in the Belle Époque*, esp. ch. 2. Interestingly, Mocquereau was aware of Rousselot's research, and cites him briefly in *Le Nombre musical grégorien* (II, 68n1). Bergeron herself draws an interesting if speculative connection between Rousselot's transcription methods and Mocquereau's chironomic notations (*Voice Lessons*, 349n98).

[124] Cordereix, 'Les enregistrements du musée de la Parole et du Geste à l'Exposition coloniale'; Pasler, 'Mapping the Globe through a "Sound Atlas"'.

CHAPTER 4

JOANNY GROSSET: DARK HORSE FROM LYON

The research charted in previous chapters would later infiltrate musical practice through the interconnected and overlapping intellectual and social networks of philologists, musicologists, and composers. However, certain individuals within these networks were more pivotal than others, bridging scholarly and musical circles and exerting a greater force on creative production. For example, Bourgault-Ducoudray and Emmanuel's scholarship and experimentation in 'ancient modality' proliferated well beyond musicological circles and infiltrated musical practices; their significant influence comes as no surprise, given their institutional home in the Conservatoire and leadership by example. However, the correlation between a musicologist's scholarly authority and musical impact was not necessarily so even or straightforward. Thus, despite his immersion within the circle of musicological scholars during the first decade of the twentieth century, Aubry did little to disseminate his research among practicing musicians, and there is little evidence that composers sought out his expertise. Conversely, Joanny Grosset (1862–1931) – a Lyonnais Sanskritist and complete outsider from the Parisian musicological scene – shaped French music in immediate and lasting ways through a single publication: his chapter on Indian music published in the *Encyclopédie de la musique et dictionnaire du Conservatoire* (hereafter, *EMDC*), the mammoth eleven-volume reference work spearheaded by Albert Lavignac and published from 1913 to 1931.[1]

The *EMDC* had been conceived by Lavignac as a vast repository of the Conservatoire's teachings: in his initial vision, its chapters would be authored by the institution's faculty and aimed at consolidating the Conservatoire curriculum for dissemination among musical amateurs and regional conservatoires. By the time of its publication, however, it had sprawled into an ambitious musicological monument with completist aspirations: its first five volumes mapped a global survey of musical cultures which bore little relation to the knowledge or expertise of the Conservatoire professorship, instead authored by an international roster of philologists and ethnographers, musicologists and musicians, missionaries and colonial

[1] Grosset, Joanny, 'Inde: Histoire de la musique depuis l'origine jusqu'à nos jours', in *EMDC*, ed. by Albert Lavignac, 11 vols (Paris: Delagrave, 1913), I, 257–376. (Lionel de La Laurencie, usually listed as a co-editor of the *EMDC*, was not yet involved in this capacity at the time Grosset's chapter was published.)

functionaries. While the *EMDC* never occupied official textbook status within the Conservatoire's own curriculum (although Emmanuel, who had contributed its chapter on ancient Greek music, cited the work in history lectures), its authority as a reference volume was assured by the institutional imprimatur, and it became familiar among composers – both within and beyond the Conservatoire – as a port of call for information on musical cultures from around the world.[2] In keeping with growing interest in Indian culture and music, Grosset's chapter became especially well trodden, its contents mined by composers including Emmanuel, Albert Roussel, Charles Tournemire, Olivier Messiaen, and André Jolivet.

Grosset's importance, as outsized as it was unlikely, provides a compelling counterpoint to the dense, mainly Parisian, philological and musicological networks sketched in previous chapters. Before he was asked to write the chapter on Indian music for the *EMDC*, Grosset's career as a Sanskrit philologist appeared moribund – although it is difficult to determine the exact combination of bad luck and ill will which made this so.[3] Moreover, Grosset had not been Lavignac's first-choice author for the chapter on Indian music. As late as 1905,[4] Lavignac confirmed that the chapter on Indian music had been assigned to 'a rajah, an excellent musician' (even without knowing who this 'rajah' might have been, we can effectively rule out Grosset).[5] Grosset had been a student of Paul Regnaud*, a respected comparative philologist and Sanskritist at the University of Lyon, the first university Sanskrit courses to be established outside Paris.[6] Under Regnaud's supervision, Grosset had undertaken study of the *Nāṭyaśāstra* ('Treatise on Drama') of Bharata Muni – a foundational treatise on music and theatre composed roughly two millennia ago[7] – resulting in two critical

[2] An earlier version of this thesis contained a chapter-length digression into the complex history of the *EMDC*, which extends at least as early as 1884, although it was not begun in earnest until 1902. Originally intended to comprise articles by Conservatoire faculty only, its authorship was considerably expanded to include nearly two hundred contributors from around the world. Interrupted by the outbreak of World War One, and further set back by Lavignac's death in 1916, the project was taken over and completed by a reluctant Lionel de La Laurencie from 1919 until its completion.
[3] For details on Grosset's troubled career trajectory, see Appendix B.
[4] 'As late as', because although his chapter was not published until 1913, Grosset writes that the article was drafted in 1906, revised, and sent to the editor in January, 1907 ('Inde', 259n1).
[5] Letter from Lavignac to Saint-Saëns dated 10/ii/1905, F-DI, fonds Camille Saint-Saëns; 'l'Inde [est traitée] par un rajah, excellent musicien'. If we assumed that the 'rajah' would have been an Indian author, one (perhaps too obvious) candidate would be Sourindro Mohun Tagore, a prolific author on 'Hindu' music who had built ties with the Paris Conservatoire in the form of substantial donations of instruments. Strangely, Grosset – who values Tagore's writings highly – alleges that Tagore 'died recently' ('Inde', 267), although Tagore only died in 1914.
[6] Regnaud, 'L'Enseignement du Sanscrit à l'université de Lyon'.
[7] Lewis Rowell places the composition of the *Nāṭyaśāstra* in 200 C.E., and says it contains 'the earliest and most detailed information on all aspects of the ancient musical system' (*Music and Musical Thought in Early India*, 19).

edition and translation projects published over the 1880s and ’90s.[8] Grosset had motivated the first of these by remarking upon the importance of studying ancient India – a ‘civilisation’ which ‘reaches back to the earliest appreciable manifestations of the Indo-European race to which we belong’[9] – and proceeded to convey ‘the capital importance of the musical art among aryan peoples, and particularly the Hindus’.[10] Yet neither of these projects in Sanskrit translation would have sufficed to suggest that Grosset should be capable of the sweeping overview required for his encyclopedia chapter; and I have found no evidence that Grosset possessed any specialised musical background or training. How it was, therefore, that Grosset came to receive this important commission owes something to happenstance. Lavignac had already sought, for another chapter of his *EMDC*, the contribution of Egyptologist Victor Loret – a former student at the Paris Conservatoire who had since become an archaeologist and *chargé de cours* at the University of Lyon, and whose expertise in the music of ancient Egypt had been brought to Lavignac’s attention by Camille Saint-Saëns.[11] Loret, in turn, helped Lavignac by conscripting his colleagues – initially Charles Virolleaud (co-author of ‘Assyrie–Chaldée’) and Maurice Courant (author of ‘Chine–Corée’ and ‘Japon’), and subsequently Fernand Pélagaud (Virolleaud’s co-author, and sole author of ‘Syriens, Perses, Hittites, Phyrigiens’) – resulting in a Lyonnais dominance in the first volume of the *EMDC* that might seem surprising given the overwhelming concentration of orientalist scholarship in Parisian institutions. When Lavignac’s ‘rajah’ withdrew for whatever reason by 1906, it is easy to imagine how Grosset might have been enlisted via networks at Lyon’s faculté de lettres.

In the context of this thesis, this survey of Grosset’s chapter serves two functions. First, it presents a prime case study to examine how a philological disciplinary background could shape musicological knowledge. The fact that India was represented by a French philologist, rather than by an Indian musician or scholar, an ethnographer, or somebody who had

[8] Grosset, ‘Contribution à l'étude de la musique hindoue’ (1888); and Bharata Muni, *Bhāratīya-nāṭya-çāstram*, ed. Grosset (1898).
[9] Grosset, ‘Contribution à l'étude de la musique hindoue’, 3; ‘remonte aux premières manifestations appréciables de la race indo-européenne à laquelle nous appartenons.’
[10] Ibid., 16; ‘l'importance capitale de l'art musical parmi les productions des peuples aryens et particulièrement des Hindous’.
[11] Victor Loret was the son of Clément Loret, a Belgian organist who had studied at Brussels with Lemmens and Fétis before being appointed professor of organ at the École Niedermeyer in Paris, where he taught Fauré, Gigout, and many others. Saint-Saëns had long been in contact with Victor Loret concerning Egyptian musical history. See letter from Lavignac to Saint-Saëns dated 21/x/1895, F-DI, fonds Camille Saint-Saëns; and Soret, ‘Lyres and Citharas of Antiquity’, 278.

conducted fieldwork, had implications for the resultant ontology of Indian music in the *EMDC*, infused with the Indo-Europeanist ideologies and philological epistemic infrastructures central to this study. Second, it provides valuable background on a resource that was plied by French composers: as the *EMDC* became an important reference tool, Grosset's contribution in particular would facilitate ongoing efforts to explore Indo-Europeanism in compositional contexts. Familiarity with Grosset's scholarship will inform readings (in Chapters 7 and 8) of musical works in which composers appropriated his research for musical ends. To date, there has been no dedicated study of Grosset's career or scholarship, and biographical details have largely eluded previous researchers.[12] Therefore, in Appendix B, I offer a précis of Grosset's early life and somewhat stunted career, based on original archival research. In the remainder of this chapter, I offer a focused reading of his encyclopedia chapter, situating it within the relevant epistemological contexts of Indo-Europeanism, philology, and musicology, and drawing particular attention to the presentation of scales and rhythms that would later infiltrate French music.

Sources and subjects.

To discern how a philologically mediated study of music (or rather, how a musical study's philological mediation) might reverberate in later musical practice, it is worth examining Grosset's study here with an eye toward how its author's disciplinary formation might have shaped the presentation of 'Indian music' enshrined in the *EMDC*. These questions can be addressed to an extent relationally, through consideration of Grosset's principal sources, and by attending to the subject position Grosset constructs for a French reader vis-à-vis Indian music.

The range of Grosset's 'Inde' is admittedly impressive, referring to and summarising many sources novel to musicology in France (and Europe for that matter) – although the balance of original research to second- and third-hand summary is highly uneven over the chapter's various sections. Grosset exemplifies philology's 'textual attitude' in a strict sense – insofar as he had no firsthand experience of performed Indian music, and it appears that he did not hear any Indian music in the composition of his chapter – and although he appears theoretically receptive to the testimony of 'knowledgeable pandits, all too unsung', this

[12] E.g., Balmer et al., *Le modèle et l'invention*, 338n6.

openness is on the grounds that they have 'passed down the torch, half-extinguished, of their fathers' marvellous civilisation'.[13]

Grosset's documentary approach is evident from the outset. He begins with a review of music's presence in the Sanskrit canon, surveying the epic, poetic, theatrical, legal, and religious texts which had formed the principal corpus of Sanskrit philological study over the nineteenth century, before introducing a variety of Indian musicological *śāstra* sources. Among these are several of the classical primary sources upon which Grosset draws directly – including, naturally, the *Nāṭyaśāstra*; but also the *Saṅgītaratnākara* ('Ocean of Music') of Śārṅgadeva, a significant thirteenth-century source described by Lewis Rowell as 'a monumental synthesis of the many musical doctrines expounded by the authors of the previous millennium';[14] and the *Rāgavibodha* ('Understanding of Rāgas') of Somanātha, which had been considered by William Jones the single most important source on 'Hindu' music. The attention Grosset pays to the *Saṅgītaratnākara* is important, not only given the value accorded to that text in Indian musicological traditions, but also because it may be the first substantial European study of that source, facilitated by the publication of the Sanskrit text for the first time in an 1897 Indian edition to which Grosset referred.[15]

Concerning Vedic and classical literature, Grosset largely defers to secondary scholarship, including that of Sanskritists such as Sylvain Lévi, Auguste Barth, and Regnaud. For the 'modern and contemporary' period, Grosset also depends on the writings of others: in addition to the sources familiar from Fétis's study (e.g., Jones, Willard, Ouseley, Paterson), he relies heavily on *The Music and Musical Instruments of Southern India and the Deccan* (1891), by Charles Russell Day, adapting much of Day's work for a French audience for the first time.[16] Grosset also cited contemporary Indian scholarship, including a spate of texts published by Sourindro Mohun Tagore. Writing about musical instruments, Grosset cites Victor-Charles Mahillon, who had included the collection of Indian instruments donated to Belgium by Tagore in his *Catalogue descriptif et analytique du musée instrumental du*

[13] Grosset, 'Inde', 258; 'la tradition s'en est perpétuée jusqu'à nos jours, entre les mains des savants pandits trop méconnus, qui se sont passé le flambeau à moitié éteint de la merveilleuse civilisation de leurs pères'.
[14] Rowell, *Music and Musical Thought in Early India*, 5.
[15] To this day no complete translation has been made of the *Saṅgītaratnākara* into any modern European language. The first four chapters were translated into English in 1978–89 (Śārṅgadeva, *Saṅgīta-Ratnākara of Śārṅgadeva,* trans. by R. K. Shringy and Premalatā Śarmā).
[16] Grosset was in fact somewhat in dialogue with Day, who cited Grosset's 1888 work on the *Nāṭyaśāstra* in his study (*The Music and Musical Instruments of Southern India and the Deccan*, 31n3).

Conservatoire royal de Bruxelles, and upon whose images Grosset also based several of his own figures. Finally, alongside these mainly Indological sources, Grosset's 'general bibliography' elucidates his engagement with broader musicological scholarship: he cites the second volume of Fétis's *Histoire générale*, Gevaert's *Histoire et théorie*, Bourgault-Ducoudray's Greek publications, and the work of Carl Engel and Hermann von Helmholtz.[17] I shall return shortly to some implications of this selection of sources; however, Grosset himself admits that his recourse to myriad second-hand sources unfortunately introduced inconsistent transcription practices into his text, discrepancies which, having not heard this music himself, Grosset was not in a position to mitigate.[18]

Grosset's relationship to Indian music is tethered to his investment in Indo-Europeanism, already clear from his 1888 publication. He began his encyclopedia article pointedly: while unable to locate the very beginnings of music in India, he identifies 'Arya's taste for music, dance, and spectacles'.[19] Concluding his study of the Vedic period, however, Grosset laments:

> Here and there we come across traces of a certain refinement, hints of a growing civilisation; however these are but pale and fleeting glimmers. The darkness of time veils forevermore the first musical manifestations of this aryan race, which, having descended from the plateaux of Pamir and Hindu Kush, set up camp in the Sind and Punjab valleys, on their way to conquer India.[20]

It is, in turn, on the basis of Grosset's investment in Indo-Europeanism that classical texts are so important to his study: for him, the core of 'Indian music' is essentially coterminous with 'ancient Hindu music'. In this respect, Grosset aligns the study of Indian music with that of Greek music – both conceived as remnants of a former 'classical' culture – and his historiographical model is Gevaert, to whom he turns for methodological guidelines in recovering the history and theory of 'a lost art'.[21] Grosset opens his chapter by emphasising

[17] Grosset, 'Inde', 273.
[18] Ibid., 324n1.
[19] Ibid., 274; 'Goût de l'Arya pour la musique, la danse et les spectacles'. Grosset's nonstandard use of the nominal 'Arya' is limited to this instance and without explication; there can be no doubt as to his meaning, however, particularly when cross-referenced against his source for this section, Sylvain Lévi's *Le théâtre indien*, 333.
[20] Grosset, 'Inde', 284; 'Nous rencontrons de-ci, de-là, des traces d'un certain raffinement, indices d'une civilisation grandissante; mais ce ne sont que des lueurs pâles et fugitives. La nuit des temps voile à jamais les premières manifestations musicales de cette race âryenne, qui, descendue des plateaux du Pamir et de l'Hindou-Kouch, se trouvait campée dans les vallées du Sindh et du Penjab, en marche pour la conquête de l'Inde'.
[21] Ibid., 258; 'un art disparu'.

this alignment, using a quote from Wagner that he plucked (without attribution) from Gevaert's own preface:

> 'It is impossible,' as Richard Wagner once said, 'to think, however little, about our art, without discovering its unity with that of the Greeks. In fact, modern art is but a link in the chain of aesthetic development of Europe as a whole, a development which began with the Hellenes.' The bold innovator could have extended the scope of this judgement as far as the ancient civilisations of the Orient…; extrapolating his idea, he could have appreciated the benefit of extending the study of ancient music to India itself…[22]

While Grosset's construction of his object of study as both 'ancient' and 'Hindu' (read: 'aryan') is integral to his primary focus on classical Sanskrit texts in obvious ways, this attitude also motivates his interest in and shapes his treatment of 'modern and contemporary' Indian music. Unlike knowledge of the music theory of Greece (which has been 'completely lost'), the Indian traditions, according to Grosset, 'still shine today', thanks to something about the nature of the Hindus – 'eminent preservationists in all respects'. On this basis, he posits that a European possessing all the necessary skills could, in principle, 'pursue, on the ground, the patient study of the debris of the ancient art which still persists'.[23] Along similar lines, when Grosset consults modern sources, he favours those framed as essentially 'Hindu'. On multiple occasions he privileges the music of southern India which 'suffered less from the commotions which shook the rest of the peninsula, and remained under purely Hindu domination for longer than the North and the Deccan'; thus, 'it is in this region that the pure tradition of Hindu art would be perpetuated, thanks to the uninterrupted study and conservation of the Sanskrit monuments'.[24] Grosset likely adopted this belief – like much of his knowledge of the 'contemporary' period – from Day, who perpetuated his own aryanist narrative of Indian music, its relationship to Greek music, and its vulnerability to 'decline'

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[22] Ibid., 257; '"Il n'est pas possible, dit quelque part Richard Wagner, de réfléchir tant soit peu profondément sur notre art, sans découvrir ses rapports de solidarité avec celui des Grecs. En vérité, l'art modern n'est qu'un anneau dans la chaîne du développement esthétique de l'Europe entière, développement qui a son point de départ chez les Hellènes." Le hardi novateur aurait pu étendre la portée de ce jugement jusqu'aux anciennes civilisations de l'Orient…; il aurait pu, généralisant sa pensée, faire bénéficier jusqu'à l'Inde même…l'étude de l'art musical antique.' Grosset must have found the quotation in Gevaert, *Histoire et théorie*, I, ix.

[23] Ibid., 259; 'brillent encore'; 'L'Hindou, éminemment conservateur en toute choses...'; 'poursuivre sur place l'étude patiente des débris subsistant encore de l'art ancien...'

[24] Ibid., 267; 'L'Inde méridionale eut moins à souffrir des commotions qui bouleversèrent le reste de la péninsule, et resta plus longtemps que les régions du Nord et du Dékhan sous la domination purement hindoue'...'C'est dans cette région que devait se perpétuer plus tard la pure tradition de l'art hindou, par l'étude ininterrompue et la conservation des monuments sanscrits…'

wherever the Muslims were.[25] (There is irony here, in that the languages of the southern portion of the Indian subcontinent have, since the nineteenth century, been classified as 'Dravidian' rather than 'Indo-Aryan' – which complicates the linguistic basis of Day's and Grosset's claims of Indo-European essentialism, to say the least – although the validity of this linguistic distinction is itself contentious.[26]) Finally, the contemporary Indian scholars whom Grosset chose to cite – not only Sourindro Mohun Tagore but also Rājendralāla Mitra – themselves articulate Hindu nationalist narratives, assimilable to a degree to European constructions of aryanism.[27] And like Jones with respect to his legal informants, Grosset considers his Hindu sources most credible when they affirm their fidelity to the ancient letter rather than to contemporary practice.

Ultimately, Grosset stops short of explicitly positing a genealogical relationship, in either direction, between Indian and Greek music (as others had) – although he cites the theory that the heptatonic Indian *grāma* gave rise to the French *gamme*,[28] and the potential of filiation is latent in his frequent comparisons between features of Indian and Greek music, and in his use of Greek-derived concepts to describe and rationalise Indian theoretical concepts. He contrasts, for example, the acoustic bases of the Greek and 'Hindu' divisions of the octave – the former through Pythagorean ratios, the latter through minute *śruti* intervals, twenty-two to an octave, based on the limits of human perception; however, in the end, this distinction dissolves, as the Hindus chose combinations of seven out of those twenty-two *śruti*s, and thus 'the Hindu diatonic scale was created'.[29] More likely, Grosset's attitudes about the relationship between Indian and Greek music were more proximate to those expressed by Regnaud with respect to theatre in his preface to Grosset's edition of the *Nāṭyaśāstra*: that, the

[25] Day, *The Music and Musical Instruments of Southern India and the Deccan*, 3; however, as Jyoti Mohan has pointed out, the valences of 'aryanism' were not necessarily identical in British writing (where imperial stakes in India disincentivised 'racial' identification between colonisers and colonised, and 'aryan' was rarely used to qualify the 'race' of contemporary Indians) and continental writing (where many authors 'posited a possible return to greatness if India embraced her Aryan past once again') (Mohan, 'The Glory of Ancient India Stems from her Aryan Blood', 1615–16). In this respect, Day's treatise stood apart from those of several of his British contemporaries; see Zon, *Representing Non-Western Music in Nineteenth-Century Britain*, 256.
[26] See, e.g., Weidman, *Singing the Classical, Voicing the Modern*, 166–7; on the contested distinction between Indo-European and dravidian languages by British imperial linguists, see Trautmann, *Languages and Nations*.
[27] On Tagore's Hindu nationalism, see Farrell, *Indian Music and the West*, 65ff; Richard Williams offers a fuller appraisal of Tagore's musicology in 'Music, Lyrics, and the Bengali Book'.
[28] This obsolete etymology originated from philologist Albrecht Weber; see Grosset, 'Inde', 292.
[29] Grosset, 'Inde', 369; 'La gamme diatonique hindoue était créée'.

two shared 'an original ancestor which reaches to the faraway, primitive period of so-called Indo-European unity'.[30]

The spectre of Greek music as a point of comparison helped shape aspects of Grosset's rhetorical enthusiasm, channelling (and citing) Bourgault-Ducoudray, for the 'richness' of modes and melodies of 'Hindu' music giving rise to large 'expressive variety'.[31] Grosset draws a comparison in the footnotes to observations made by Bourgault regarding the intervals of Greek and Byzantine ecclesiastical music.[32] In the context of this thesis, the most important element he appropriates from the Greek music historiography of Bourgault and Gevaert might be their advocacy for the infusion of ancient theory into modern practice. Grosset opens his entire chapter with a section on the 'utility of studying the art of the past':

> Literature from all eras has enriched itself with borrowings; taking material from wherever it is found, it has made the most of patient research, often leading to a sort of creative imitation, to an intelligent adaptation of the immortal productions of extinct civilisations. The plastic arts have no less benefited from the resurrection of a long-forgotten past. Why should the same not be so, in some respects, for music?[33]

To recapitulate the above, therefore: Grosset's stance toward Indian music was largely rooted in Sanskrit texts (studied firsthand or secondhand), or in the testimony of European travellers insofar as it could reveal something about the 'classical'; and his analysis was formed in view of a fragmentary assemblage of data pointing toward principles of an 'ancient Hindu musical civilisation', which could be mined by modern European artists to expand the reach of 'musical emotions'. Although Grosset was neither himself a musician nor affiliated to a musical institution, his commission from the Conservatoire appears to have motivated his enthusiasm for the musical potential of his scholarship, inspiring him to prophesy the very use of his chapter that several French composers would later implement.

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[30] Regnaud in Bharata Muni, *Bhāratīya-nāṭya-çāstram*, p. x; 'une parenté originelle qui remonte jusqu'à la période lointaine et primitive dite d'unité indo-européenne'.
[31] Grosset, 'Inde', 371.
[32] Ibid., 371n5.
[33] Ibid., 258; 'La littérature de toute les époques s'est enrichie d'emprunts; prenant son bien où elle le trouvait, elle a su profiter habilement de recherches patientes qui l'ont souvent conduite à une imitation en quelque sorte créatrice, à une adaptation intelligente des immortelles productions des civilisations éteintes. Les arts plastiques n'ont pas moins gagné à la soudaine résurrection d'un passé longtemps oublié. Pourquoi n'en serait-il pas de même, à certains égards, de la musique?'

Forms and objects.

Given the sources and subject positions outlined above, what forms does Grosset's profile of 'Indian music' take? What kind of musical 'objects' did Grosset's philological scholarship produce?[34] One of the most striking things about Grosset's chapter is the preponderance of taxonomies and comparative tables replete with terminology (e.g., Figs. 4.1*a–b*). The three central sections, covering Vedic, classical, and modern music, contain no fewer than twenty such tables (by my count), among which are schematics of Śārṅgadeva's and Somanātha's pitch and *rāga* systems, Śārṅgadeva's collection of 120 *deśītāla* rhythms, and a collection of '72 Carnatic Scales' copied from Day which are in fact the so-called *melakartā* – a theoretical system of rāga classification introduced in the seventeenth century.[35] These tables would later become salient resources for French musicologists and composers, as I shall demonstrate; it is worthwhile, therefore, to consider some implications of this mode of musicological representation.

The abundance of tables and terms is not wholly imposed by Grosset himself. Classical Sanskrit science (in the form of *śāstra*) is rich in taxonomy and inventory, lending itself to tabulation when written.[36] *Śāstra*, Sanskrit's scholastic genre, is frequently contrasted with *prayoga*, just as 'theory' is contrasted with 'practice'.[37] As Rowell observes, the significance of *śāstra* in the Indian cultural and intellectual context is derived from the perception of its age and unwavering authority.[38] However, *śāstra* developed within an educational model where theoretical and practical knowledge were transmitted face-to-face from teacher to pupil. A student would recite and memorise *śāstra*s as a component of their education; but *śāstra*s themselves, conceived as collections of verse, represented only part of the educational process, intended as a foundation and complement, but not a replacement, for personal tuition. Consequently, *śāstra* can appear inscrutable in isolation from an instructor knowing

[34] A similar question has been eloquently posed by anthropologist Amanda Weidman in the context of her study of debates over notations systems in nineteenth- and twentieth-century South India: 'What kind of order did such a representation produce?' (*Singing the Classical, Voicing the Modern*, 211).
[35] On the *melakartā* system, see Weidman, *Singing the Classical, Voicing the Modern*, esp. 233–6.
[36] As Rowell puts it, 'Indian thought is relentlessly taxonomic'. He notes, however, epistemological differences between taxonomies of early Indian and modern European thought: early Indian taxonomies, he writes, are 'inclusive', and 'contradictions are the norm'; they are 'seldom arranged in sharp dichotomies and exclusive categories' (*Music and Musical Thought in Early India*, 24–5).
[37] Ibid., 120; for a classic treatment of this topic, see Pollock, 'The Theory of Practice and the Practice of Theory in Indian Intellectual History'.
[38] Rowell, *Music and Musical Thought in Early India*, 123.

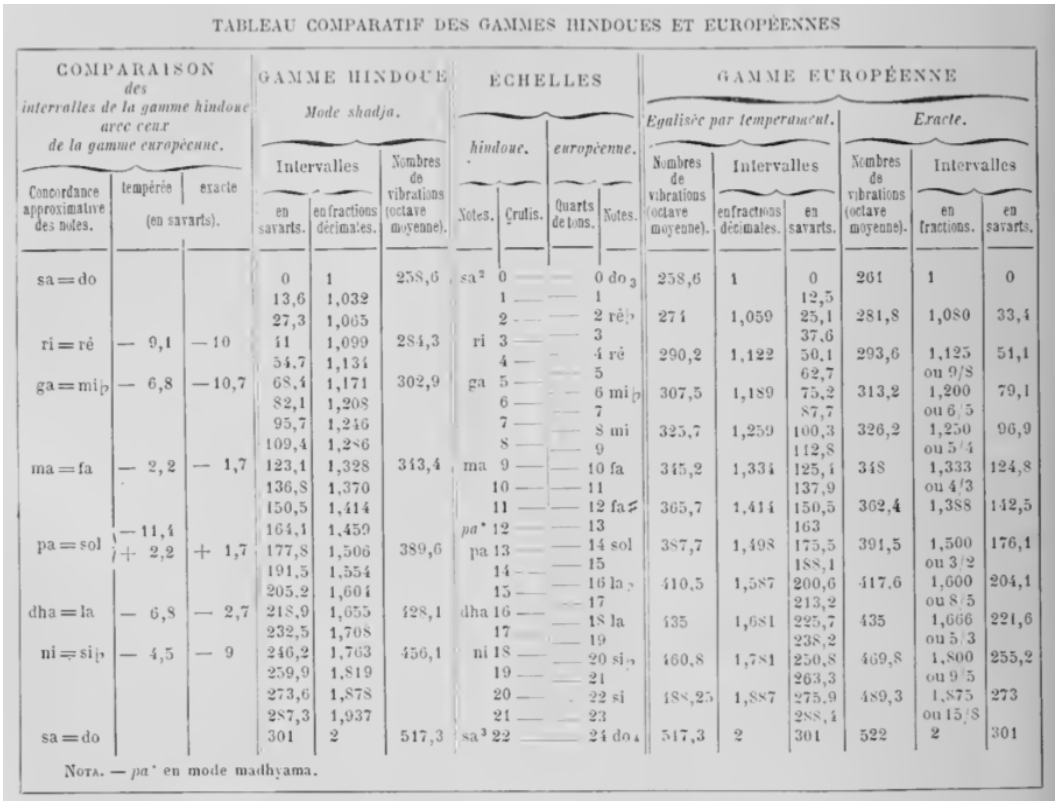
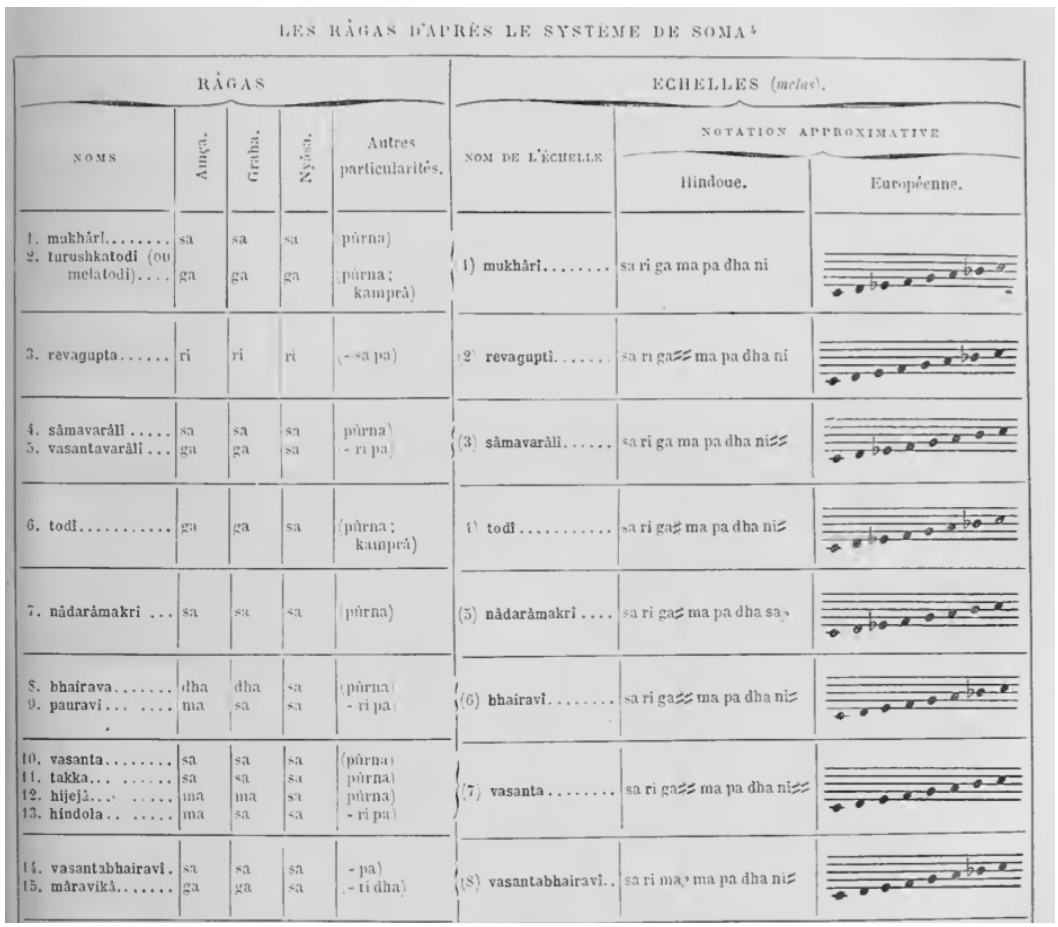


TABLEAU COMPARATIF DES GAMMES HINDOUES ET EUROPÉENNES

COMPARAISON des intervalles de la gamme hindoue avec ceux de la gamme européenne.			GAMME HINDOUE Mode shadja.			ÉCHELLES			GAMME EUROPÉENNE					
						hindoue.		européenne.	Egalisée par tempérament.			Exacte.		
			Intervalles		Nombres de vibrations (octave moyenne).				Nombres de vibrations (octave moyenne).	Intervalles		Nombres de vibrations (octave moyenne).	Intervalles	
Concordance approximative des notes.	tempérée (en savarts).	exacte (en savarts).	en savarts.	en fractions décimales.		Notes.	Çrutis.	Quarts de tons. Notes.		en fractions décimales.	en savarts.		en fractions.	en savarts.
sa = do			0	1	258,6	sa²	0	0 do₃	258,6	1	0	261	1	0
			13,6	1,032			1	1			12,5			
			27,3	1,065			2	2 ré♭	274	1,059	25,1	281,8	1,080	33,4
ri = ré	— 9,1	— 10	41	1,099	284,3	ri	3	3			37,6			
			54,7	1,134			4	4 ré	290,2	1,122	50,1	293,6	1,125	51,1
								5			62,7		ou 9/8	
ga = mi♭	— 6,8	— 10,7	68,4	1,171	302,9	ga	5	6 mi♭	307,5	1,189	75,2	313,2	1,200	79,1
			82,1	1,208			6	7			87,7		ou 6/5	
			95,7	1,246			7	8 mi	325,7	1,259	100,3	326,2	1,250	96,9
			109,4	1,286			8	9			112,8		ou 5/4	
ma = fa	— 2,2	— 1,7	123,1	1,328	343,4	ma	9	10 fa	345,2	1,334	125,4	348	1,333	124,8
			136,8	1,370			10	11			137,9		ou 4/3	
			150,5	1,414			11	12 fa♯	365,7	1,414	150,5	362,4	1,388	142,5
	— 11,4		164,1	1,459		pa'	12	13			163			
pa = sol	+ 2,2	+ 1,7	177,8	1,506	389,6	pa	13	14 sol	387,7	1,498	175,5	391,5	1,500	176,1
			191,5	1,554			14	15			188,1		ou 3/2	
			205,2	1,604			15	16 la♭	410,5	1,587	200,6	417,6	1,600	204,1
								17			213,2		ou 8/5	
dha = la	— 6,8	— 2,7	218,9	1,655	428,1	dha	16	18 la	435	1,681	225,7	435	1,666	221,6
			232,5	1,708			17	19			238,2		ou 5/3	
ni = si♭	— 4,5	— 9	246,2	1,763	456,1	ni	18	20 si♭	460,8	1,781	250,8	469,8	1,800	255,2
			259,9	1,819			19	21			263,3		ou 9/5	
			273,6	1,878			20	22 si	488,25	1,887	275,9	489,3	1,875	273
			287,3	1,937			21	23			288,4		ou 15/8	
sa = do			301	2	517,3	sa³	22	24 do₄	517,3	2	301	522	2	301

NOTA. — *pa'* en mode madhyama.



LES RÂGAS D'APRÈS LE SYSTÈME DE SOMA⁴

RÂGAS					ECHELLES (*melas*).		
NOMS	Aṁça.	Graha.	Nyâsa.	Autres particularités.	NOM DE L'ÉCHELLE	NOTATION APPROXIMATIVE Hindoue.	Européenne.
1. mukhâri.....	sa	sa	sa	(pûrna)			
2. kurushkatodi (ou melatodi)....	ga	ga	ga	(pûrna; kampâ)	1) mukhâri.....	sa ri ga ma pa dha ni	
3. revagupta.....	ri	ri	ri	(- sa pa)	(2) revagupti.....	sa ri ga♯♯ ma pa dha ni	
4. sâmavarâli.....	sa	sa	sa	(pûrna)			
5. vasantavarâli...	ga	ga	sa	(- ri pa)	(3) sâmavarâli.....	sa ri ga ma pa dha ni♯♯	
6. todi.....	ga	ga	sa	(pûrna; kampâ)	(4) todi.....	sa ri ga♯ ma pa dha ni♯	
7. nâdarâmakri ...	sa	sa	sa	(pûrna)	(5) nâdarâmakri	sa ri ga♯ ma pa dha sa♭	
8. bhairava.....	dha	dha	sa	(pûrna)			
9. pauravi.....	ma	sa	sa	(- ri pa)	(6) bhairavi.....	sa ri ga♯♯ ma pa dha ni♯	
10. vasanta.....	sa	sa	sa	(pûrna)			
11. takka.....	sa	sa	sa	(pûrna)			
12. hijejâ.....	ma	ma	sa	(pûrna)	(7) vasanta.....	sa ri ga♯♯ ma pa dha ni♯♯	
13. hindola.....	ma	sa	sa	(- ri pa)			
14. vasantabhairavi.	sa	sa	sa	(- pa)			
15. mâravikâ.....	ga	ga	sa	(- ti dha)	(8) vasantabhairavi..	sa ri ma♭ ma pa dha ni♯	

Figures 4.1*a–b*: Comparative tables from Grosset's 'Inde', pp. 294 & 321. Note the conversions of Sanskrit and European terminology (e.g., solfège, savarts, and/or staff notation).

the tradition by which *śāstra* relates to *prayoga*. Moreover, the presumed vocalisation of *śāstra* was integral to its formal conception: its Sanskrit versification served not only the purpose of systematising knowledge, but also facilitated embodied recitation. As Rowell writes,

> The intent was clearly to produce an oral literature, by encoding maximum information in the fewest words and also in the most rhythmic and predictable literary style, taking full advantage of every shortcut and mnemonic aid. As a result the texts are often little more than strings of keywords, designed to jog the memory and recall what was already deposited during face-to-face instruction.[39]

One might even question the extent to which such treatises were intended to serve practicing musicians at all, or whether their authors had in mind a more courtly audience, connoisseurs who might wish to display a *śāstra*-based musical erudition without having to sit at an instrument.[40]

The distinct cultural logics of texts in the early Sanskrit and modern French contexts raise difficult questions for a potential translator such as Grosset. While Grosset's interface with *śāstra* was exclusively textual – doubly removed from the vocality of their traditional modes of apprehension, and from the knowledge or transmission of *prayoga* – the textualisation of *śāstra* was never intended as a complete 'representation' of, or substitute for, practices of scientific or musical instruction. As Regula Burckhardt Qureshi writes, 'textual traditions are situated within larger epistemological frames with which they articulate as much as with musical practices'.[41] The status of textuality itself in 'early' Indian scholarship rendered texts epistemologically subsidiary to face-to-face instruction and vocalised recitation, with material texts perceived as fragile in comparison to the immaterial transcendence of *śāstra* transmitted from teacher to student over generations. (We might contrast this notion of textual ephemerality to the premise of textual authority at the core of nineteenth-century European philology, according to which texts transcend the caprice of living tradition and human recollection, or the 'contamination' of 'foreign influence' on practice.) Moreover, it is clear that *śāstra*, conceived as a foundation but requiring, in practice, supplementary realisation via holistic processes of learning *in situ*, produces, in textualised isolation, a warped

[39] Ibid., 128.
[40] I thank Richard Williams for steering me toward this possibility, informed by his own research on (albeit somewhat later) early modern Hindi music treatises.
[41] Qureshi, 'Other Musicologies', 318.

representation of a musical tradition. Translating *śāstra* verses word for word, given their density of shorthand and metrical profile, would produce neither a musically intelligible nor pedagogically useful result. Nonetheless, if one understands the principles of lexical consolidation, it is relatively easy to convert the Sanskrit terminology into western music notation – although by doing so, one loses the vocalisable practicality of the versed *śāstra*, and winds up with the unwieldy assemblages of words and notes of Grosset's chapter. At the risk of proposing an overly reductive contrast, one might argue that the textual culture of Sanskrit *śāstra* is sufficiently distant from the textual culture of late nineteenth-century European philology as to render Grosset's project of translation ineffectual, at best. And not least, Grosset, with access only to textual sources extracted from their contexts of production and use in India, could not hear, much less understand, how the texts he possessed might ever manifest itself into music.[42]

An indicative illustration of what is gained and lost in Grosset's adaptation of an old Sanskrit musical text is provided in Appendix C, in which I trace the steps he took to transform a handful of *śāstra* verses, as he would have encountered them, into the tables he ultimately provided in his chapter. My example is selected from the fifth chapter of the *Saṅgītaratnākara*, in which Śārṅgadeva describes 120 '*deśītāla*s', or rhythmical patterns – a rhythmic resource that would become integral to the compositional technique of Olivier Messiaen from the 1930s. These verses exemplify Rowell's description of *śāstra* as 'strings of keywords', with each rhythm explained through a collection of abbreviations, synonyms, and self-referential jargon, cleverly moulded into pithy *śloka* couplets, the standard metre of *śāstra* verse. The result is a compact collection of lilting, memorisable verses defining the durational sequence of each rhythm – provided you know how to unpack the language. Nonetheless, despite what may be the best possible translation of the thirteenth-century text, what the *deśītāla*s are or were in the context of ancient Indian music remains elusive. Rowell has extended the study of the *deśītāla*s further than Grosset could have done, not least by

[42] The conundrum was not unique to Grosset. One is reminded of Julien Tiersot*'s shrewd characterisation of Fétis's chapter on Indian music, articulated a few years before Grosset's study: 'Certes il nous éblouit par l'accumulation des mots étrangers qu'il nous sert: sa joie est immense s'il peut les multiplier à l'infini, et si, après avoir dénombré les degrés Joubhunca, Ouggra, Roummaja, Rohiny, et une vingtaine d'autres, il peut passer au Mode bengali, au Mode ranameri, au bhairavi, au nettâ, au taccâ, etc., etc. Cela est fort beau, et nous dirions volontiers avec M. Jourdain: "Voilà une langue admirable que cet hindou!" Mais, le premier étonnement passé, nous voudrions bien savoir ce que cela veut dire, et surtout connaître l'application pratique et esthétique de ces belles choses. Or, c'est ce dont notre auteur se soucie le moins. Après avoir cité Molière, il nous sera bien permis de rapporter un mot de Balzac: "Toute la science humaine: une nomenclature!"' (*Notes d'ethnographie musicale*, 59; also quoted in Pasler, 'India and its music', 28).

considering a variety of Sanskrit sources beyond the *Saṅgītaratnākara*.[43] Rowell conceives of the *deśī* tradition as a sort of 'splintering' of the classical *mārga* tradition – not a 'doctrine' but a 'movement', emerging from diverse regions of India. The total number of *deśītāla*s, varying from 30 to over 200, depends on the treatise. While the length of the catalogue may vary, musical contexts are rarely illuminated, although, according to Rowell, 'it is clear that the *deśī tāla*s were more than abstract patterns of durations, although only the durations have been recorded.' Rowell proffers, like Grosset, that the rhythms are 'popular', and 'more closely associated with song and poetic traditions than with the theater'.[44] However, his statistical analysis of the rhythmic sequences leads him to few generalisable formal conclusions.[45] And any notion of the *deśītāla*s that we or Rowell might posit here would hardly be less mediated today than it was when Grosset wrote his chapter. From our perspective, therefore, there remain many ambiguities in Śārṅgadeva's presentation of the *deśītāla*s which are irreducible in the absence of a learned instructor or practitioner of thirteenth-century Indian music: for example, a few of the rhythms have apparently identical durational sequences, but different names; the final rhythms bear the author's two names, '*niḥśaṅka*' and '*śārṅgadeva*', a winking signature which raises the question of Śārṅgadeva's creative interventions with respect to the rest of the rhythms' names and sources;[46] and most significant, because the chapter deals with *tāla* alone, we are left only to conjecture how these rhythms might have interacted with pitch, gesture, or other musical elements in practice.

To put it more concretely: if the metrical list of *deśītāla*s operated as a sort of 'aide-mémoire' recitation in the Sanskrit context,[47] bearing (at the very least) traces of a pedagogical, epistemological, and vocal culture within which music and verse were transmitted, once severed from this nexus of practices and transplanted into Grosset's article it becomes little more than a vague litany of nonsensical rhythms, a shell of music notation containing no music – yet constituting half of Grosset's section on Indian rhythm. Grosset's table of *deśītāla*s might have been drawn up by Flaubert's hapless copyists, Bouvard and Pécuchet. This point, demonstrated more clearly in Appendix C, might be extrapolated to Grosset's tabular presentations of other excerpts of theories of *rāga*, including for example the classification system of Somanātha, transformed from its elegant seventeenth-century

[43] Rowell, *Music and Musical Thought in Early India*, esp. 207–14.
[44] Ibid., 208–9.
[45] Ibid., 212–14.
[46] See Śārṅgadeva, *Saṅgītaratnākara*, I, 444.
[47] Rowell, *Music and Musical Thought in Early India*, 141.

presentation in *āryā* metre into a gargantuan chart.[48] The case of the aforementioned '72 Carnatic Scales' of the *melakartā* system is particularly intriguing: although this modal classification system, codified in the seventeenth century by Venkatamakhi and others since, was conceived as more theoretical than practical, its exhaustive and systematic nature, plus its superficial assimilability to European scale systems, attracted the attention of nineteenth- and twentieth-century musicologists in particular (including Grosset), who viewed it as evidence of familial relation between Indian and European musics. As a classification system, the *melakartā* propose a readymade, quasi-philological structural analysis of *rāga* systems used in practice; Amanda Weidman has already suggested that the sudden interest in the *melakartā* system around the turn of the twentieth century was due to the influence of philology, which led to the modes' subsequently outsized presence in twentieth-century texts on Indian music, including those published in Southern India.[49]

If Grosset's graphical schematisation in charts and tables neutralises Indian music's specificity, what it facilitates is a perspective of comparativism, imported from his philological training.[50] In such comparative tables, Grosset isolates a musical parameter, facilitating juxtaposition with an ostensibly like parameter along a given axis, implying relations (either of similarity or difference) and often teleological vectors. Given their philological pedigree, comparative tables are scientific (this does not imply they are rigorous), and appear rational and neutral, even as the categorical axes upon which comparison is structured may be culturally contingent. In many of his tables, Grosset includes a column indicating 'European' equivalences – usually in terms of note names (solfège) or heads – or else universalist measurements like savarts (akin to cents; see again, e.g., Fig. 4.1*a*). The result, therefore, is a double abstraction, of both Indian and European musical parameters, from their contexts of musical behaviour or character. For the purpose of conveying the sound of Indian music to the reader, Grosset's tables disappoint; however, the portrayal of

[48] Grosset, 'Inde', 321–3. The '*āryā*' metre, incidentally, should not be taken to have anything to do with notions of aryanism, despite the etymological resemblance.
[49] Weidman, *Singing the Classical, Voicing the Modern*, 233–6, and 319n34. Grosset did not reproduce the table directly from an Indian treatise, but rather from Day's *Music and Musical Instruments of Southern India and the Deccan*. There is again a dimension of 'unvoicing' at play in Grosset's (and Day's) representation of the *melakartā*, insofar as they omit to describe the elegant Kaṭapayādi mnemonic system, by which the scales' names in fact encode their pitch content.
[50] There is a certain feedback loop at play which merits further clarification, whereby the comparative philological epistemology, itself shaped by the European encounter with the Sanskrit grammatical tradition as Thomas Trautmann has shown (see above, Introduction, note 16), then came to shape subsequent European representations of Sanskrit traditions, including the musical, as here.

heptatonic modes and metrical patterns, for example, offers scintillating possibilities of assimilation to ancient Greek music, similarly mediated by philological and textual study and already familiar to early twentieth-century musicologists.

While these types of representational strategies predominate in Grosset's chapter, it would be misleading to omit those times when he transcribes melodic extracts, either from ancient sources or recopied from travel accounts. Grosset produces selected exemplary classical *jāti* and *rāga* types, as transcribed from the *Saṅgītaratnākara*; his primary interest in copying these melodies is to relate them to generalisable, quasi-grammatical principles and rules. Regarding the first of Śārṅgadeva's *jāti*s, he articulates various 'observations' using a variety of Indian terms, but also vocabulary deriving from Greek music and plainchant (e.g., '*thesis*', 'initiale', 'finale', 'ambitus').[51] While he often includes lyrics below his transcriptions, he rarely provides translations: 'I reproduce, in Sanskrit, the text of the lyrics on which each of these melodies is sung, so that the reader may grasp how they fit to the song. A translation would have been without interest or use, given the scant literary value of this redundant poetry…'.[52] Here, Grosset makes his priorities clear: properties of musical (and even linguistic) 'structure' prevail over qualities of sound or meaning.

To summarise, I would argue that the profile of Grosset's representation of Indian music is characterised by an emphasis on text over sound, theory over practice, structure over process, Hindu over Muslim, and finally, history over present-and-future – to invoke a litany of binaries which are both explicit and latent in his chapter. These qualities are largely attributable to biases baked into Grosset's own training and discipline: the representation of 'Indian music' in the *EMDC* embodies Siraj Ahmed's contention that the philological epistemology relies 'not on native experience, therefore, but rather on its destruction'.[53]

[51] E.g., Grosset, 'Inde', 309.
[52] Ibid., 309n1; 'Nous reproduisons, dans sa forme sanscrite, le texte des paroles sur lesquelles était chantée chacune de ces mélodies, afin que le lecteur puisse se rendre compte de la façon dont elles s'adaptaient au chant. Une traduction eût été sans intérêt comme sans utilité, étant donné le peu de valeur littéraire de cette poésie redondante…'
[53] Ahmed, *Archaeology of Babel*, 38.

Conclusion.

Amid the decidedly mixed reviews of the *EMDC* as a whole, Grosset's contribution was often singled out by music critics – including Lionel de La Laurencie, Henri de Curzon, and Adolphe Jullien – for its richness, depth, and novelty. Some commented on its theoretical focus, the 'abundance' of its textual 'documentation'. De Curzon qualified it as a 'true monograph, entirely novel, bursting with texts and images'.[54] La Laurencie, revealing his own preconceptions and an inattention to Grosset's mediating role, interpreted the particular emphasis on theory over practice as indicative of Indian music generally, remarking that 'one must expect to find, among a people subjected to a social system of castes, an artistic formalism pushed to the extreme'.[55] The same year as his chapter was published, Grosset was awarded the *Œillet d'argent* from the Académie des sciences, belles-lettres, et arts de Lyon.[56] In 1915, the Académie des inscriptions et de belles lettres rewarded him once again, this time with a Prix extraordinaire Bordin, accompanied by 1,000 francs.[57] A generation later, Grosset's text remained an authoritative source, a fact which attracted rebuke from Alain Daniélou, leader of a younger generation of French Indologists, who accused Grosset of complicity in the colonialist destruction of Indian musical culture by way of his idealisation of a past musical 'splendour', now presumed 'lost'.[58]

Despite the accolades with which his work was heralded at its publication, I have found no trace of Grosset's activities in the years following publication of his chapter. When he died in 1931, his death certificate listed him as 'sans profession'.[59] Should Grosset have managed to trace developments on the Parisian musical scene up until that time, however, he would have been able to hear, at last, some of the music contained in his chapter, reverberating on the concert stage – not as ancient Indian music, but as modern French music – as composers began searching for the 'unknown musical emotions' he had promised.[60]

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[54] *La Revue critique d'histoire et de littérature* 25 (19/vi/1915), 394; 'une vraie monographie, absolument neuve, bourrée de textes et d'images'.
[55] *L'Année musicale* 3 (1913), 295–6; 'M. Grosset expose de très intéressantes considérations sur la théorie et la composition des mélodies, car, il faut s'attendre à rencontrer chez des peuples assujettis au régime social des castes un formalisme artistique poussé à l'extrême.' This cliché obtains a degree of irony in light of the hyperformalism which emerged from such bastions of liberalism as, say, Darmstadt or Princeton (although Darmstadtian hyperformalism is not entirely unrelated to the formalism portrayed in Grosset's chapter; see below, Chapter 8).
[56] My thanks to Pierre Crépel of the Académie de Lyon for his warm welcome, and for providing me with information about this award.
[57] *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 59/6 (1915), 422.
[58] Daniélou, *Introduction to the Study of Musical Scales*, 138.
[59] F-LYam, 2E2250 [registre de décès, Lyon (2e arrondissement), 1930–31], 61.
[60] Grosset, 'Inde', 258; '...émotions musicales inconnues…'.

PART II

COMPOSING WITH PHILOLOGY:
AUTHENTICITY, INNOVATION, ABSTRACTION

INTRODUCTION TO PART II:
CROSSCURRENTS OF MUSIC AND INDO-EUROPEANISM

Part I of this thesis demonstrated that comparative philology and Indo-Europeanism were a driving force of nineteenth-century French intellectual activity – including musicology. It may not come as a surprise, therefore, that Indo-Europeanist thought infiltrated French musical composition, too, and that music, itself, absorbed and contributed to broader cultural constructions of Indo-Europeanism in turn. The four chapters of Part II aim to locate some identifiable imprints of Indo-Europeanist musicology on compositional practices themselves. To do so, I maintain my relational approach: focusing on circulations of individuals and on practices of knowledge production bestriding scholarly and musical circles, I follow the musicologists who advocated for musicians to take up their project, and retrace the paths of composers as they consulted, read, and creatively misread philological and musicological sources.

Philology, however, is not the only route by which Indo-Europeanism manifested itself musically; plenty of artists and composers alluded to Indo-Europeanist themes without engaging with philological scholarship themselves. To put philology's imprint into greater relief, we might consider some possible conduits between 'sources' of Indo-Europeanism and musical outputs. I propose three: literary mediations, live encounters, and then the philological mediations which will assume the greatest importance here. These paths of 'musical apprehension'[1] are not exhaustive, nor mutually exclusive – in fact, they frequently overlap – and I offer them heuristically, in order to clarify the particularity of philology's mediating role. I view these crosscurrents as a potential, relationally considered, alternative to taxonomies of musical borrowing, appropriation, and representation which are based on aesthetic determinations of 'authenticity' or 'assimilation'. However, that is not to suggest that there is no relationship between this social dimension and the aesthetic results. These currents of transmission often manifest in distinct ways which contribute to a 'texture' – to borrow a term from literary criticism – the 'web of codes, techniques, and signifiers' with which meaning is woven into music, as composed or performed, as heard, seen, or read.[2] As

[1] See above, Introduction, note 76.
[2] Barthes, 'Texte (Théorie du)'; Barthes writes, 'la théorie actuelle du texte...cherche à percevoir le tissu dans sa texture, dans l'entrelacs des codes, des formules, des signifiants, au sein duquel le sujet se place et se défait, telle une araignée qui se dissoudrait elle-même dans sa toile'.

we shall see throughout these chapters, characteristics which musicologists have often interpreted as degrees of 'authenticity' or 'structural' integration of musical borrowings, and thereby a reflection of a composer's broader ethical outlook, may instead be down to the imprints left by distinct forms of mediation.

Literary mediations. Translations of texts in ancient 'Indo-European' languages, especially Sanskrit and Persian (Avestan, previously also called 'Zend'), proliferated with the rise of philology, and provided a trove of literary, mythological, philosophical, and poetic inspiration for dramatic and musical projects. The logic of mediation here is straightforward: translated texts serve as a literary or programmatic basis for musical composition, sometimes through collaboration with a librettist; beyond new source materials and storylines, there is little difference between this approach in connection to Sanskrit texts, and what already took place with respect to musical adaptations of classical Greek or Latin texts. The importance of an Indo-Europeanist ideology may or may not be pronounced in such works, although it is certainly relevant for contexts of both production and reception. We might count among examples of this route the adaptations of Kālidāsa's *Śakuntalā* by Ernest Reyer, Georges Hüe, and Pierre de Bréville (not to mention Schubert's unfinished *Sakontala* from earlier in the century); further examples include the many stagings of 'Hindu' plots, such as André Gedalge's *Sitâ* (1888), or Charles de Sivry's *Le Coeur de Sitâ* (1891).[3] We could also include programmatic instrumental works based on translations of Hindu texts, such as the passage from the *Bhāgavata Purāṇa* used in the preface of scores by Jean Déré (*Krishna*, 1925) and Jean Hubeau (*Tableaux Hindous*, 1935), or the passage from the *Bhagavad Gītā*, translated by Émile Burnouf and quoted in Édouard Trémisot's symphonic poem, *La Halte divine* (1909). Texturally, literary mediations of Indo-Europeanism often manifest themselves in musical composition through imagery, narrative, or programmatic content, sometimes with recourse to traditional musical topics or tropes of orientalist or classicist composition.

While the importance of Sanskrit to the development of Indo-Europeanism makes representations of India an obvious site for locating its imprint on modern French culture,

[3] We may be tempted to add another prominent Indianist opera, Delibes's *Lakmé* (1883) to this list. This would not be entirely inappropriate, however the mediations are somewhat less straightforward: *Lakmé* is set in British India, and its plot draws upon an imagined colonial encounter rather than Sanskrit literature. Even so, its libretto was based on a story by Théodore Pavie – a Sanskrit student of Eugène Burnouf, whose view of Hinduism was framed by Indo-Europeanist perspectives, as can be gleaned from his other writings (see Cronin and Klier, 'Théodore Pavie's "Les babouches du Brahmane" and the Story of Delibes's *Lakmé*).

notions of Indo-Europeanism also reframed ancient Greek and Roman literature and mythology in the historical imagination – a logic which even extended to medieval France in the conception of Gaston Paris*, who sought to trace literary forms along their journey 'from the banks of the Ganges to those of the Seine'.[4] From there it was no leap for popular folklorist Emmanuel Cosquin to claim the same lineage for French *contes populaires*.[5] What would it mean, therefore, to reread the immense repertory of *fin-de-siècle* musical adaptations of medieval, hellenic, and folkloric literary inspiration through a hermeneutics attuned to contexts of Indo-Europeanism? Such a broad question cannot be broached in this thesis; however, I would venture that contexts of Indo-Europeanism were far more prevalent than is often realised, and such a research question might offer significant findings.

We could broaden the literary lens even further to include, say, song settings of poets themselves seduced by the Indo-European hypothesis. They include Leconte de Lisle, whose collection of *Poèmes antiques* (1852) assimilates Indo-Europeanist fantasy to verses evoking Indian, Greek, Roman, and Celtic themes (contrast this constellation to that of his *Poèmes barbares*, 1862). Leconte de Lisle's 'Celtic' poems inspired settings by Debussy ('Jane' (1881), and 'La fille aux cheveux de lin' (the mélodie in 1882 and the prélude in 1910)); his 'Persian' poems, Fauré ('Les Roses d'Ispahan' (1884)); his 'Greek' poems, Roussel ('Odes anacréontiques' (1926))[6]; his 'Indian' poems, Chausson ('Hymne védique' (1886)) and Bachelet (*Sûryâ* (1940)); to name only a few examples. Is it appropriate or helpful to interpret a miniature like 'La fille aux cheveux de lin' in light of intellectual contexts of Indo-Europeanism? It depends. Perhaps it is worth considering from a hermeneutic perspective what Celticism might have represented to a young composer in the 1880s. After all, 1881 was the year Bourgault-Ducoudray lectured on his theory of musical aryanism based on his Breton fieldwork; and the following year's Celtic literature course at the Collège de France began with the following pronouncement: 'The surest way to give oneself a scientific idea of the Celts, our ancestors, is to begin by studying their language…the westernmost branch of the Indo-European family'.[7] The matter is clearer with respect to Bachelet's *Sûryâ*, a bombastic

[4] Paris, *Les contes orientaux dans la littérature française du moyen âge*, 6; 'depuis les bords du Gange jusqu'à ceux de la Seine'.
[5] Such a hypothesis is developed in Cosquin's volume of *Contes populaires de Lorraine* (1886), framed by an 'Essai sur l'origine et la propagation des contes populaires européens'. Cosquin was later elected to the Institut, upon the nomination of Gaston Paris.
[6] For an examination of Leconte de Lisle's own conceptions of Greek music, including its modes and rhythms, see Corbier, 'Le Beau idéal incarné'.
[7] d'Arbois de Jubainville, *Introduction à l'étude de la littérature celtique*, 1.

setting of Leconte de Lisle's 'Vedic hymn' commissioned by the Vichy government, which fed transparently into aryanist propaganda at its 1942 premiere.[8]

Or, one could consider how the work of someone like Stéphane Mallarmé, which stimulated so many composers, owes much to the poet's engagement with Indo-Europeanist philology (via Max Müller) and mythology (via Müller and George William Cox)[9]; ditto for Maurice Maeterlinck.[10] Indian theatre stoked the Symbolists' interest, as adaptations of Sanskrit plays like *Le Chariot de terre cuite* (*Mṛcchakaṭikā*) and *L'Anneau de Çakountala* [Śakuntalā] were staged by Lugné-Poe in the 1890s.[11] We might ask how *fin-de-siècle* occultism, rooted largely in aryanist readings of ancient Sanskrit, Avestan, and Greek texts, further nourished musical imaginations. (If Debussy's well-known exchanges with the esoteric publisher Edmond Bailly form one example, theosophist Helena Blavatsky's fantasised 'aryan music', or the aryanist mysticism underlying the work of Bretonne composer Rita Strohl, offer further cases worth exploring.[12]) Again, such questions fall beyond my scope, but gesture toward the complexity of unravelling the deeply intertwined intellectual and creative worlds of nineteenth-century France – after all, it was Bailly who published some of Burnouf's chant 'restitutions'.[13]

Live Musical Encounters. In another vein, musicians have sought more direct experiences of musical cultures firsthand. Again, it can be tricky to discern when such an encounter is framed by a taste for 'exoticism' or a search for 'Indo-Europeanism' – perhaps, at times, it is both. The question is particularly knotty where India is concerned, given the perceived gap

[8] Sprout, 'Les Commandes de Vichy', 173–6; and Mehlman, *Adventures in the French Trade*, 27–8. *Sûryâ* was initially conceived by Bachelet in his student days but only completed by commission from the Vichy government, and often programmed as a French 'counterpart' to Wagner.
[9] Mallarmé's debts to what he calls the 'sciences' of comparative philology and mythology are most evident in his didactic works, *Les Mots anglais* (1878) and *Dieux antiques* (1879); see Marchal, *La Religion de Mallarmé*, sections II and V; and Do, 'Mythe, mythologie et création de Max Müller à Stéphane Mallarmé'.
[10] See, for example, *Le Grand Secret* (1921), in which Maeterlinck, citing William Jones, Max Müller, and Abel Bergaigne, asserts that 'science' has demonstrated that the source of all religions, beliefs, and philosophies is found in ancient India (5).
[11] *Le Chariot* (1895) was staged by Lugné-Poe the year after Maeterlinck's *Pelléas et Mélisande*. Both Sanskrit plays were enthusiastically received by Mallarmé, while Camille Mauclair praised *Çakountala* in explicitly aryanist terms. For a reading of these stagings at the nexus of Symbolism, aryanism, and Wagnerism, see Tian, *The Use of Asian Theatre for Modern Western Theatre*, 19–28.
[12] On Debussy and Bailly, see Herlin, 'À la librairie indépendante', 36–37; on Strohl, see Larronde, *L'Art cosmique et l'Œuvre musical de Rita Strohl*, 47ff. The worlds of esotericism and philology were not at such odds as they might logically seem; see, e.g., Lardinois, *L'invention de l'Inde: entre ésotérisme et science*. Bailly studied the work of Gevaert and Ruelle* (who was also interested in the 'magic' chants of ancient Greece), and published some of Émile Burnouf's scholarship; and Blavatsky was deeply influenced by Émile Burnouf's scholarship as well.
[13] On Burnouf's chant restitutions, see end of Chapter 2.

between its ancient and contemporary cultures, and it can be difficult to gauge the impact of Indo-Europeanist contexts on the works under discussion. The example of composer Maurice Delage illustrates this complexity. Jann Pasler positively appraises Delages's highly experimental *Quatre poèmes hindous* (1912) as a challenge to 'superficial impressionism' which led him to 'subvert traditional Western music practices' through the 'integration of Western and Eastern materials,' afforded by his travels in India.[14] Pasler writes approvingly that for Delage, 'race was a positive attribute of a people, a key to understanding them' – a conclusion of discomfiting optimism, given that she opened her chapter by recalling the spike in French aryanism, and thereby interest in India, in the wake of the 'péril jaune' – suggesting that the 'race' of the Indian musicians Delage so enjoyed was only 'positive' insofar as it was 'aryan'.[15] Beyond Delage, contemporary Indian music was often disparaged as distant from its supposed ancient perfection. Julien Tiersot* was disdainful of the Indian musicians he heard at the 1900 *exposition universelle*.[16] Victor Segalen, who experienced contemporary Indian music, contrasted it with the supposedly beautiful music of the 'Aryans of Vedic India' in a letter to Debussy, demonstrating how live experiences may also be shaped by intellectual constructions of Indo-Europeanism.[17] (Bourgault-Ducoudray had expressed something similar in response to contemporary Greek ecclesiastical music, opining that it had fallen into a state of 'decadence,' and required reform according to the spirit of its traditional principles.[18]) Notwithstanding Segalen's dismissals, Debussy seems to have welcomed live Indian music more warmly. He met the Indian musician Inayat Khan, who performed in Paris in 1913 and 1914, with apparent interest;[19] however, how contexts of Indo-Europeanism might have coloured this encounter is not straightforward (not least because Khan was notably Sufi, though consistently described as 'Hindu' in the French press[20]), and, in any case, the extent to which Debussy quoted Indian music remains open to debate.[21]

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[14] Pasler, 'Race, Orientalism, and Distinction', 103, 109. Pasler's reading of Delage is taken up in Chapter 7, below.
[15] Ibid., 110, 86–7.
[16] Pasler, 'India and its Music in the French Imagination', 37.
[17] Quoted in ibid., 38.
[18] Bourgault-Ducoudray, *Études sur la musique ecclésiastique grecque*, 65–6.
[19] Pasler, 'India and its Music in the French Imagination', 38.
[20] See, e.g., Jacques Heugel, 'Le Mysticisme du Son', *Le Ménestrel* 12/iii/1920, 111–12; André Schaeffner, 'Concert de musique hindoue', *Le Ménestrel*, 16/ii/1923.
[21] Debussy abandoned sketches for *Siddhartha*, a 'drame Bouddhique' proposed by Segalen. It has been claimed that Debussy quoted an 'authentic Indian melody' in 'Et la lune descend sur le temple qui fut' (1907, originally titled, 'Et la lune descend sur le temple de Bouddha'), although this cannot be confirmed. See Howat, 'Debussy et les musiques de l'Inde', 141, 143; and Orledge, 'Debussy's Piano Music', 23. Françoise Gervais has analysed *L'isle joyeuse* in terms of the Carnatic mode '*Vachaspati*', a reading taken up by Howat (*Debussy in Proportion*, 48–9); the conscientious use of that mode appears unlikely (as the work was composed well before the publication of Grosset's chapter), and Gervais's analysis perhaps reveals more about the widespread extent to

Borrowings via live performance thus may or may not be mediated by broader societal understandings of Indo-Europeanism, depending on the circumstances. Moreover, in the above cases, these encounters are themselves products of socio-political phenomena which bring those worlds into contact – often travel motivated by the European exercise of colonial, industrial, or military power – and which mediate the terrain of artistic appropriation alongside the intellectual contexts. Texturally, as the cases of Delage and Debussy suggest, live encounters have often manifested themselves as experimentation in sonority and timbre; in particular, continuities between 'exotic' musical encounters and 'ultramodern' techniques in musical sonority have been explored by scholars such as Barbara Kelly.[22]

Philological mediations. The remaining chapters of this thesis will be devoted to the mediating role of philology in the musical composition of Indo-Europeanism. Here, musicians and composers interface with comparative philologists through attempts to map philology's methods and findings onto the domain of music: rather than (or sometimes, in addition to) drawing upon the literature (translations, paraphrases, popularisations) processed by philologists, philological techniques themselves (abstraction of linguistic units, comparison of morphological features, restoration of earliest forms) would be applied to musical objects, often by musicologists. This is the type of work familiar from Part I: musicologists attempted to determine musical counterparts – modes and metres, specifically – to linguistic units (e.g, roots/stems, declensions/conjugations, and other inflections) identified by the comparative philologists. Composers, in turn, consumed this musicological scholarship with an eye toward creative appropriation, seizing upon these elements of musical 'grammar' as the basis of a ('re')constructed musical 'language'.

Music – or rather, these basic units of musical 'grammar' – thus traverses disciplinary interfaces rather in the manner of 'boundary objects' – a term introduced by sociologist Susan Leigh Star to describe objects or ideas that are common to 'intersecting social worlds', but afford different meanings depending on local concerns and priorities among the different

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which the Carnatic modes became known among francophone musicological circles in later decades. One potentially fascinating case which, to my knowledge, has not been examined is Debussy's *Sonate pour flûte, alto et harpe* (1915). The opening bars of the second movement evoke the texture of an *ālāp*, with the viola's low-C drone, the flute's scalar melody, and the harp's strummed entrance. Given the nationalist flavour of Debussy's sonata project, it would be worth investigating whether there is an identitarian dimension to the evocation of Indian music in this work.

[22] Kelly, *Music and Ultra-Modernism in France*, ch. 4.

communities that make use of them. Boundary objects, which can be 'abstract or concrete', are shared among multiple groups, and 'satisfy the informational requirements of each of them' in different ways.[23] In the context of my study, music is objectified – as melodies, modes, metres, and even genres – and shared among philologists, musicologists, composers, analysts, and critics; once reified, these entities retain a certain integrity of structure and form, even while the meanings they bear fluctuate in relation to the social group concerned. For example, for philologically minded musicologists, collections of modes represented reconstituted quasi-linguistic artefacts which could in turn be systematically defined, classified, and compared, often as a means of charting human origins, defining 'racial' identity, or recreating ancient culture. For historically or nationalistically minded composers, certain modes might represent a compositional inheritance – a resource which could be combined with modern techniques of harmony and counterpoint to revivify a national musical style, or to legitimate experimentalism. For later generations of musicologists and musicians, the use of 'modes' in French composition had spread epiphenomenally – often more a response to contemporaneous musical trends than an engagement with underlying intellectual histories – infiltrating music to the extent that musicologists today can refer casually to 'modality' as an analytical heuristic. Star offers a way to account for how an object's multiple discrete meanings can coexist and inhere all at once: in other words, musical modes or metres may simultaneously exist as scientific data points, markers of identity, and/or raw artistic materials – depending on one's perspective and priorities.

Texturally, philological mediation manifests itself in the importation of specific formal parameters, such as 'modes' and 'metres'. The musicological research and appropriations undertaken by composers in this context are often signalled through paratextual explanations, labels, or prefaces, often giving such compositions an additional technical, scholarly, or scientific texture through assertions of technical rigour. Following Gérard Genette as well as recent scholarship on the sociological dimensions of composers' writings, I read such paratexts not only as face-value descriptors of compositional techniques or borrowings, but also as illocutionary utterances, performative speech acts which authorise deviations from

[23] Star and Griesemer, 'Institutional Ecology, "Translations" and Boundary Objects'; and Star, 'This is Not a Boundary Object', 604. Specifically, in Star and Griesemer's study, vertebrate specimens, collected and tagged by trained amateur enthusiasts and used in a museum's research laboratories, absorb varying meanings for the different groups involved: for collectors, the 'literal, concrete preservation of animals is sufficient for their purposes'; for the researchers, this preservation is 'only the beginning of a long process' of scientific argumentation ('Institutional Ecology, "Translations" and Boundary Objects', 408).

common tonal, and later metrical, practices.[24] In the long run, however, what becomes most distinct about these philologically mediated appropriations is their tendency to recede from perception. Fulfilling philology's own promise of accessing a deep realm of fundamental linguistic 'structure', composers 'perform' a self-conscious abstraction and restructuration of music's own basic 'grammar'. By the time we arrive at Messiaen in Chapter 8, philologically mediated appropriations nearly vanish, as it were – far from any notion of programmatic representation, into the technicised realm of 'formalism' or 'rationalism'.

[24] Genette, *Seuils*, 16–17; the *locus classicus* for the distinction between performative (or illocutionary) and constative speech, which Genette also cites and which I borrow as a heuristic, is J. L. Austin, *How to Do Things with Words*. For recent scholarship on composers' writings as a 'genre', see Duchesneau, Dufour, and Benoit-Otis, eds., *Écrits de compositeurs*.

CHAPTER 5

BOURGAULT-DUCOUDRAY'S PERFORMANCES OF AUTHENTICITY AND INNOVATION

Bourgault-Ducoudray developed and propagated theories of folksong filiation, as discussed in Chapter 2, engaging with hypotheses of an Indo-European linguistic family and 'racial' identity. While Bourgault's scholarly stature was assured by his Conservatoire professorship, his letters to Burnouf indicated that he remained committed to his training as a composer, and to the goal of harnessing his scientific work as the means to an artistic end. He had conceived this agenda even prior to his collection mission in Greece, and continued to advocate it ceaselessly upon his return – throughout public lectures and salon soirées devoted to Greek music in the 1870s, and even more forcefully in the 1880s following his mission in Brittany. Moreover, as we saw, the Breton songs catalysed a key shift in Bourgault's public polemic on the value of ancient Greek modes and metres – and this shift was reflected in the rhetoric of his compositional activism. If the rationale for borrowing modes and metres from Greece had been, as Jann Pasler described it, 'a kind of musical colonization', the aryanist framework brought forth by the Breton collection refocused his borrowings, as Panos Vlagopoulos has countered, toward the embrace of heritage.[1] As Bourgault declared in an 1881 lecture, and later reiterated in the introduction to his *Trente mélodies populaires de Basse-Bretagne*: 'If the ancient modes belonged only to the Greeks, it would be scholarly caprice, pure archaeological fantasy, to attempt to resuscitate them in our music. But if, on the contrary, these venerable modes came from a heritage common among all Aryans, one sees no reason why we would not exploit this domain which is a part of the patrimony of our race, and which is rightly ours.'[2]

In this chapter and the following one, I show how Bourgault translated his intellectual project into a musical one, both in his own compositions (beginning with the song arrangements themselves) and, furthermore, in the work of peers and students. The transfer from the realm of scholarship to that of art occurred not only through notes and rhythms on the page, but also

[1] Pasler, 'Race and Nation', 476; Vlagopoulos, '"The Patrimony of Our Race"', 58–9.
[2] Bourgault-Ducoudray, *Trente mélodies populaires de Basse-Bretagne*, 16; 'Si les modes antiques appartenaient aux Grecs exclusivement, ce serait un caprice de lettré, une véritable fantaisie d'archéologue que de chercher à les ressusciter dans notre musique. Mais si, au contraire, ces modes vénérables proviennent d'un héritage commun à tous les Aryens, on ne voit pas pourquoi nous n'exploiterions pas un domaine qui fait partie du patrimoine de notre race et qui est en vérité bien à nous.'

through a variety of persuasive verbal appeals. Through close reading of Bourgault's Greek collection with particular attention to their paratextual framing, I shall examine how Bourgault wielded the techniques of transcription alongside 'philological' arrangement, clearing a discursive space in which musical experimentation was 'authenticated' through appeals to science. I conclude the chapter with an interpretation of Bourgault's *Thamara* (1891), his début at the Paris Opéra, in which the musical and intellectual ambitions of song arrangements are magnified to an operatic scale. In Chapter 6, I broaden the lens beyond Bourgault to those in his circle, and consider the reception of Bourgault's musical results by composers who rearranged and reframed his Greek songs in different contexts. Treating his songs with remarkable plasticity, they renegotiated the balance between realms of scholarly research and artistic integrity, appropriating Bourgault's authority to enhance musical constructions of 'oriental' and 'ancient' worlds.

Trente mélodies populaires de Grèce et d'Orient.

As Sindhumathi Revuluri has argued, folksongs are 'actively made', not just 'uncovered'; the harmonic arrangement and material packaging of folksongs were musical and ideological battlegrounds, and debates about folksong harmonisation, cast in 'defensive and pervasive justifications,' appealed to competing constructions of music (and human) history, exerting a powerful effect on *fin-de-siècle* French practices.[3] Bourgault's collection of Greek melodies, with its music-theoretical preface and polemic on harmonisation practice, illustrates Revuluri's claim perfectly; published in 1876, it was an important model for the collections of the 1880s which formed the corpus of her study.

But the creative ambitions of Bourgault's arrangement practices extended beyond folksong harmonisation and represented new horizons for French musical style, which Bourgualt bolstered with a carefully calibrated interplay between markers of scientific authority and artistic taste. Recall that Bourgault's collection began with an appeal to science, with its substantial preface outlining the theory of Greek modes, supplemented with his 'hybrids' and 'oriental chromatic' contrivances. Bourgault used this scientific apparatus in order to legitimate artistic experimentation; in turn, the success of his artistry reinforces the perceived

[3] Revuluri, 'French Folk Songs and the Invention of History', 249, 263. Revuluri focuses in particular on collections by d'Indy and Tiersot, with reference also to Bourgault's Breton collection.

validity of his scientific claims. Perhaps this logical circularity ultimately limited the impact of his argumentation among future generations of 'scientists' (i.e., musicologists); musicians on the other hand, less troubled by the particular mechanics of his reasoning than they were seduced by the novelty of his results, were prepared to follow in his path. If the decline of salon culture, the advent of recording technology, and the awareness of Bourgault's scholarly missteps have rendered the collection obsolete today as either light entertainment or ethnography, its widespread reception and influence in the late nineteenth century among scholars and artists alike makes it worth revisiting. A closer examination of Bourgault's musical and rhetorical techniques, and their reception by French musicologists and composers, demonstrates how Bourgault used the language of comparativist science to enact his artistic vision into being.

In drawing attention to the cultural work of Bourgault's collection, I wish to forestall any question of 'authenticity' to Greek sources. George Kokkonis has demonstrated the shortcomings and oversights of Bourgault's fieldwork in Athens and Smyrna – such as his suppression of the diverse Athenian urban musical scenes, his preference for educated sources who shared his philhellenic agenda, and the outsized role played by one Cypriot singer known as Madame Laffon.[4] I seek not to further discredit the 'authenticity' of Bourgault's collection, as such, but rather to demonstrate how Bourgault constructed 'authenticity' – in both a transcriptive and identitarian sense – through his own discursive practices. After all, irrespective of their true 'authenticity' (whatever that may mean), Bourgault's songs were received as compelling – whether because of perceived authenticity, artistic value, or both – and his ideas provided a viable programme for French musical innovation. Therefore, I propose not to account for evidence of their 'truth value' (or lack thereof) but rather of their 'illocutionary' effectiveness – their success in enacting a musical and even historical reality – through what we might call speech acts of 'authentication'.[5]

Bourgault first authenticated his transcriptions in the preface of his Greek collection by describing them as 'photographs', as we have seen. Having asserted the accuracy of his melody and appraised its value as a vestige of ancient modality, Bourgault goes on to describe his process of harmonic arrangement. He isolates the transcribed melody as sacrosanct: 'I

[4] Kokkonis, 'L'altérité amadouée'.
[5] Nicholas Cook suggests reading musical analysis – of which Bourgault's preface may be taken as an example – as both representations and illocutionary utterances; see 'Analysing Performance, Performing Analysis', 261.

imposed the rule of never touching the melody for the sake of the harmony; on the contrary, I made the harmony obey the melody, striving to conserve in my accompaniments the character of the *mode* to which the melody belonged.'[6] The belaboured pseudo-philology by which the melodies were linked to ancient modes is thus transferred one level further to the logic of Bourgault's harmonic arrangement. Bourgault declares his humble subservience to the modes as if to suggest that his harmonisations are rooted in a larger ideal, an 'authentic' reality. In doing so, his arrangements are construed as 'true' to ancient Greek musical principles. In his approach to harmonisation, Bourgault breaks from precedents like Jean-Baptiste Weckerlin*, who arranged folksongs in common-practice tonal style,[7] instead reflecting in his approach a method inspired by that of Louis Niedermeyer and Joseph d'Ortigue for the harmonisation of plainchant.[8] The fact that Bourgault applies a logic from plainchant to Greek folksongs is symptomatic of his assimilation of Greek, plainchant, and folk 'modalities' into a continuous musical system. Yet for Bourgault, the Greek melodies do plainchant one better: the melodies of plainchant, 'deprived today of its rhythm and its original character, are like mummies, compared to the living melodies of the Orient.'[9]

Bourgault's scientific apparatus spills beyond the introduction and into the song arrangements themselves. In place of the picturesque engravings which ornament collections like Weckerlin and Champfleury's *Chansons populaires des provinces de France* (1860) and add a touch of atmosphere when splayed across the drawing room music stand, Bourgault's collection is adorned with technical descriptions of music theory to contribute to what we might call the scientific 'texture' of his publication.[10] Each song is accompanied by an explanation of the mode(s) it displays; given the preponderance of 'irregularities' and 'hybridities', such

[6] Bourgault-Ducoudray, *Trente mélodies populaires de Grèce et d'Orient*, 8 (préface); 'Nous nous sommes imposé pour loi de ne jamais toucher à la mélodie pour les besoins de l'harmonie; au contraire, nous avons fait obéir l'harmonie à la mélodie, nous efforçant de conserver dans nos accompagnements le caractère du *mode* auquel la mélodie appartenait.' [Bourgault's emphasis.]
[7] Pasler, 'Race and Nation', 154.
[8] Kakouri, 'L'harmonisation des chansons populaires grecques', 24. Bourgault sought Niedermeyer and d'Ortigue's *Traité théorique et pratique de l'accompagnement du plain-chant* in advance of his second trip to Athens. The idea to use modes as the basis for harmonisations may also have been spurred by Neapolitan passengers on his return passage from Piraeus to Marseille, who, according to Bourgault, performed folksongs in spontaneous two-part modal harmonisation. Bourgault also cites secondhand reportage of modal polyphony in Corsica, suggesting that the music of former Greek colonies along the Mediterranean basin, including Marseille, might retain traces of 'le sang grec' (*Souvenirs*, 30–1).
[9] Bourgault-Ducoudray, *Trente mélodies populaires de Grèce et d'Orient*, 7 (préface); '...privées aujourd'hui de leur rythme et de leur caractère primitifs, ressemblent à des momies, si on les compare aux mélodies vivantes de l'Orient.'
[10] Revuluri makes a related observation comparing the presentation of Tiersot's and d'Indy's respective collections a generation later ('French Folk Songs and the Invention of History', 257–61).

explanations are seldom straightforward. Yet these explanations accomplish two critical manoeuvres for Bourgault: first, they justify nonstandard harmonic procedures and musical turns of phrase; and second, they legitimate these deviations from common tonal practice via a scientific stamp.

The fourth melody in the collection (Fig. 5.1) illustrates how Bourgault translates his philological premises into artistic innovations. To come to terms with Bourgault's treatment of this charming song, it is worth first considering the vocal part, just as he 'photographed' it,

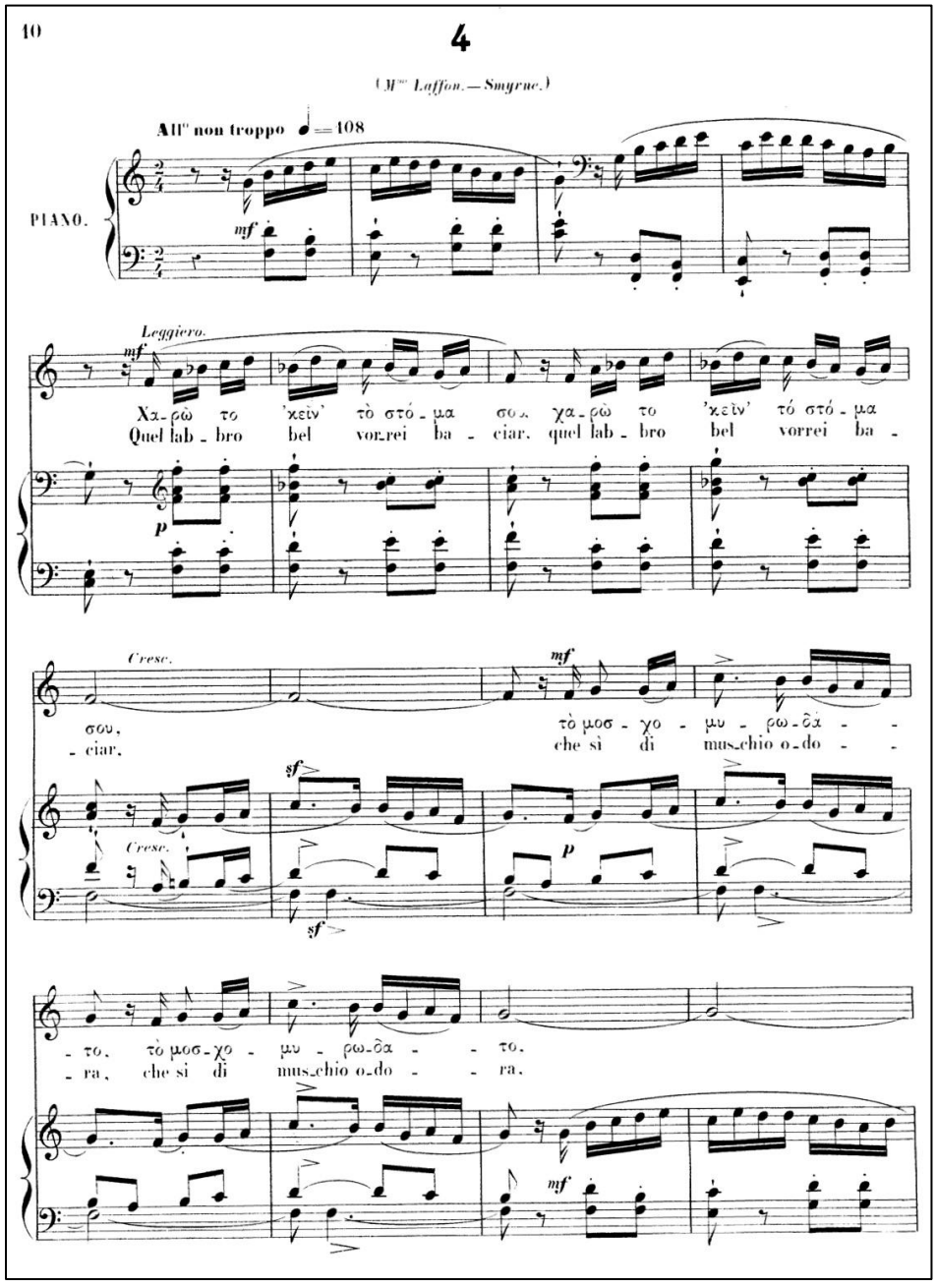

Figure 5.1: Bourgault's Greek melody No. 4, first verse.
'A' section of vocal melody: bb. 5–10; 'B' section: bb. 11–16.

in isolation from the accompaniment he subsequently imposed. It takes a roughly symmetrical binary form, with a rollicking and melismatic A section, followed by a B section of equal length punctuated with a sustained and accented apex. There are only two verses, and the lyrics are pithy: 'If only I could cling to your lips, which are scented of musk, and which have made me – with no regret – lose all reason!' According to Bourgault's transcription, the A segment has B♭, while the B segment has B♮. This accidental becomes Bourgault's pearl: while another transcriber might have dismissed this detail as an elusive (or naïve) idiosyncrasy, perhaps even seeking to iron it out in transcription, Bourgault exalts it as a precious fossil of a distant musical logic. In the theoretical explanation accompanying the song, Bourgault reproduces the Greeks' 'immutable system', citing Gevaert (Fig. 5.2*a*). The immutable system, he explains, is the summation of the greater and lesser perfect systems, containing consecutive and overlapping conjunct and disjunct tetrachords. The convergence of the two systems in the 'immutable system' accounts for the coexistence of B♭ alongside B♮ in the melody's pitch set. In turn, Bourgault argues that this pitch set implies the co-presence of two 'modes': a 'hypolydian' on F, with F as tonic, and a (modified!) 'lydian', on G, with C as tonic (Fig. 5.2*b*–*c*); the 'A' section of the melody exhibits the former mode, the 'B' section the latter.[11]

Figure 5.2*a*: The 'immutable system', according to Bourgault.

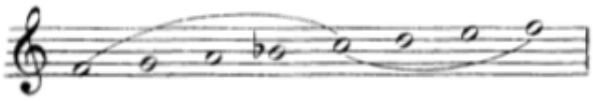

Figure 5.2*b*: The 'hypolydian' mode, on tonic F ('A' section of melody).

Figure 5.2*c*: The 'modified lydian' based on G with tonic C ('B' section of melody).

[11] Recall that Bourgault's modal nomenclature is different from modern usage; see above, Chapter 2, note **Error! Bookmark not defined.**.

This elaborate theorisation becomes the basis of Bourgault's arrangement – the putative modal structure defines the realm of harmonic affordance for the keyboard part. First, he introduces the A theme in the keyboard introduction – but it is transposed up a tone, such that the singer seems to enter in a startling new key. Furthermore, there appears something odd about the harmonisation: in the introduction, the melody seems to begin and end on the fifth scale degree, undergirded with a fleeting dominant-tonic resolution to C Major in each bar (1–4). However, with the entry of the voice a tone lower, the harmony recenters around F Major; the melody now begins and ends on the first scale degree, while the harmony becomes a two-bar pattern, intensified by the introduction of a dominant preparation chord (5–8). There is a cleverness about this manoeuvre, which is anything but spontaneous. The keyboard introduction, it turns out, presents the melody not only in a different key, but in a different mode: although the vocal melody of the 'A' section is in the 'hypolydian', the keyboard introduction is rendered in Bourgault's 'modified lydian'. This explains both the retonicisation of the melody, and the change of harmonisation: the 'modified lydian' harmonisation of bars 1–4 could not have been used for the voice's lower presentation of the same melody, without introducing new pitches (i.e., E♭) outside of the 'immutable system'. From an artistic standpoint, the very appendage of the transposed introduction, and the consequent reframing of the repeated melody, serve to build a defamiliarising effect into the opening bars, one which emphasises the particular 'modality' of the arrangement. Bourgault exploits the space of the keyboard introduction (which of course belongs to the realm of his composed arrangement rather than his 'photographed' transcription) to introduce and heighten effects of modal defamiliarisation throughout the collection.

Coming to the end of the 'A' section, the keyboard's bass lands on F, which Bourgault plants as a pedal tone for the 'B' section. This seems perverse: while the melody shifts into his 'modified lydian', the pedal appears to anchor the bass on the tonic of the 'hypolydian'. As a result, the first and second beats of each bar feature jarring dissonances, deliberately emphasized by *sforzandi*, accents, and the syncopated rearticulation of the pedal tone. While the repetitions of the 'A' segment featured the two modes in succession, this 'B' segment, with its 'lydian' melody and bass rooted in the 'hypolydian', illustrates the simultaneous 'coexistence' of modes that Bourgault theorised – it is an early experiment in polymodality.[12]

[12] Maurice Emmanuel, one of Bourgault's most committed students, would advocate the cause of 'polymodality' in French music half a century later ('La Polymodie', 1928).

Through these gestures, Bourgault's arrangements inflate one nuance in order to exaggerate the melody's 'modality' – its 'difference' or 'otherness', but also, its generative potential. While he may indeed have collected the tune in Smyrna, as he sources it, its most striking musical features come from his arrangement and are based on his own theories. The song's ostensibly ancient Grecian roots provide the perfect cover for Bourgault to distort, exaggerate, or otherwise experiment with nonstandard harmonic procedures, and 'innovate' as he likes: the philological bases of his arrangement legitimate his harmonic experimentation, and his success as an arranger not only expands the 'modal' lexicon available to French composers, but reinforces the credibility of his transcription.

Similar efforts to aggrandise 'modality' through harmonisation are widespread throughout the collection. An example similar to No. 4 is found in No. 16, in which another fleeting B♭ becomes the stimulus for no fewer than three modal modulations in the keyboard part. In melodies like Nos. 5 and 13, Bourgault turns to quasi-plagal cadences to accommodate the absence of a leading-note in the 'hypodorian' (a classic 'modal' giveaway). In the case of No. 5, Bourgault further defamiliarises the cadence by using not the subdominant *iv*, but rather ii^6, arguing that 'the attraction of the leading-tone is replaced by the double attraction resulting from the presence of B and F in the first inversion.'[13] In both songs, these harmonic cadences occur somewhat gratuitously after the transcribed melody has arrived at its own resolution to the tonic, and, in all but one instance, are additionally stressed through expressive marks, either an accent, or a swell (Fig. 5.3). And again, he uses the space of the piano introduction to adumbrate the oblique harmonisation.

At various points, Bourgault's collection teeters between its philological and creative ambitions. Tipping the balance toward the philological side are his analyses of Nos. 8 and 19, two songs in which the second scale degrees appear to vacillate between a semitone or tone above their respective tonics. From this feature, Bourgault discerns two types of tetrachord: his 'lydian' and his 'oriental chromatic'. Regarding song No. 8, he asks rhetorically, 'Does the existence of such hybrids not indicate a certain affinity between the ancient *lydian* and the

[13] Bourgault-Ducoudray, *Trente mélodies populaires de Grèce et d'Orient*, 15.

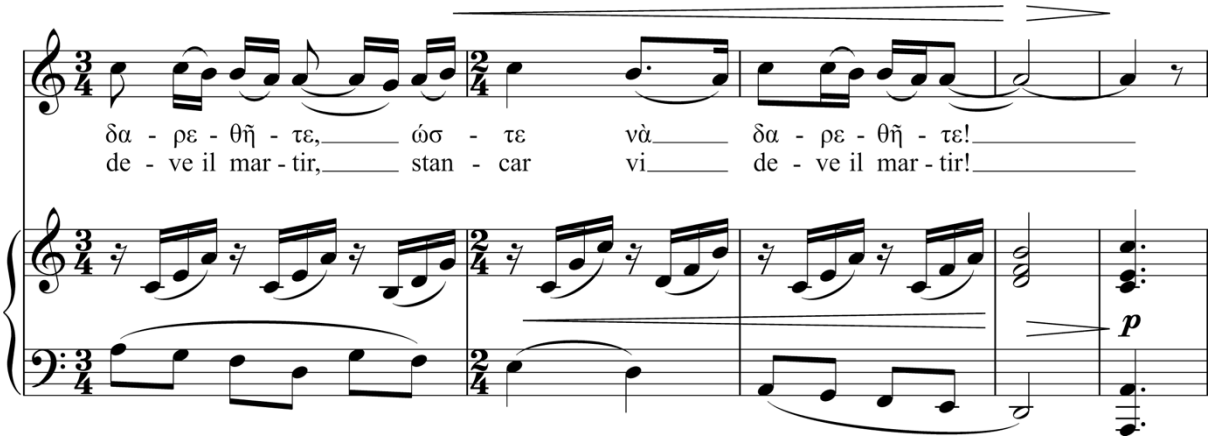

Figure 5.3: From melody No. 5, bb. 11–15. The cadence in the keyboard part is postponed beyond the resolution of the vocal melody.

oriental chromatic?'[14] In interpreting No. 19 (Fig. 5.4), he commits a cardinal philological fallacy, attributing similarity of appearance to similarity of origin, and implies the degeneration of a 'classical' mode into an 'oriental' one: 'Does [this] example of the transformation of the *lydian* into *oriental chromatic* not appear to indicate a filiation between

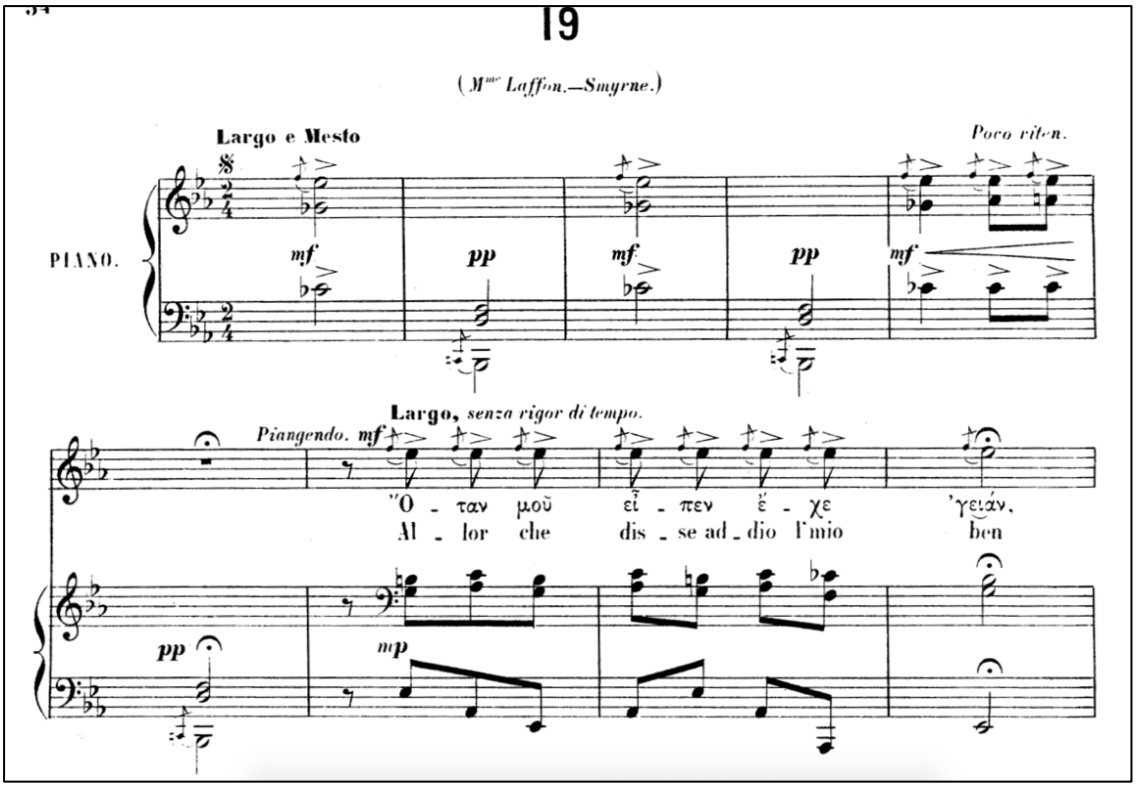

Figure 5.4: From melody No. 19: Bourgault reinforces his proposed filiation between the 'lydian' and 'oriental chromatic' by alternating between C♮ and C♭ (B♮).

[14] Ibid., 25; 'L'existence de ces hybrides n'indique t'elle [sic] pas une certaine affinité entre le *Lydien* antique et le *Chromatique oriental*?'

these two modes?'[15] The presumed proximity between these modes is translated into the distinctive feature of his harmonic arrangement, with the keyboard introduction vacillating between the C♭ and C♮ as though the song were a musical chrysalis.

Yet elsewhere, Bourgault tips the balance in the other direction with a playful artistic touch unattributable to any pseudo-philological reasoning. Such is the case in No. 22, a melody which Bourgault attributes to the hypophrygian mode on G, with its final on the mediant B, 'altered' by flattened sixth and absent seventh scale degrees. Formally, the melody contains two verses respectively marked 'Giocoso' and 'Con brio', each capped with a contrasting refrain marked (perhaps playfully) 'Supplichevole' and 'Dolce amoroso'. These refrains, in

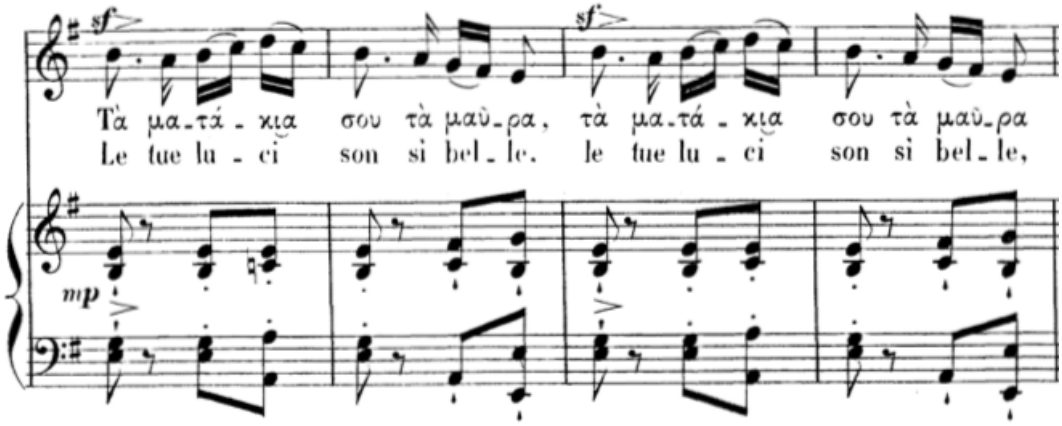

Figure 5.5*a*: From melody No. 20, vocal entry.

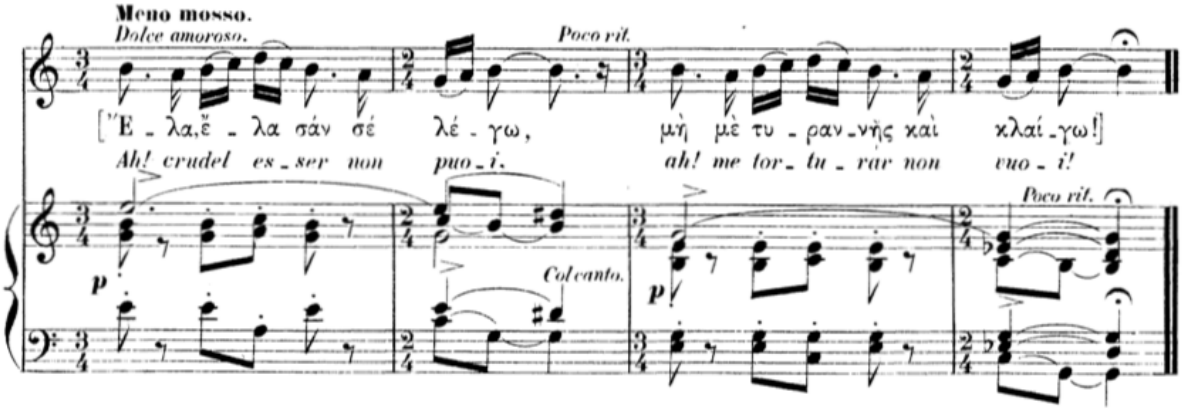

Figure 5.5*b*: From melody No. 22, final system. According to Bourgault's analysis, this melody is in a 'hypophrygian' mode, with E♭. By introducing E♮ and a familiar rhythm in the harmonisation, Bourgault creates a musical link with No. 20, above.

[15] Ibid., 55; 'L'exemple fourni par la mélodie no. 19 de la transformation du *lydien* en *chromatique oriental* ne semble t'il [sic] pas indiquer une filiation entre ces deux modes?'

melody and rhythm, closely echo the opening of song No. 20, diverging only for the final two notes which rise from G to B instead of descending to E (Figs. 5.5*a–b*). Bourgault underscores this echo in the keyboard, also borrowing the same accompanying gesture from the earlier song. However, in doing so, he breaks his own rule, expanding the song's harmonic arrangement beyond the mode of the melody with an E minor triad. With this playful gesture, Bourgault does something remarkable: he threads a cyclical element into the song collection. While this seems totally incongruous for an anthology, it represents Bourgault's priorities – an artful exchange of philological credibility for intertextual creativity.

Between transcription and composition.

As we have seen, Bourgault conceived his plan to implement Greek modality in French composition, starting with his own work, before he had even returned to France from that first convalescent voyage to Greece in 1874, and making sense of Bourgault's convoluted harmonic justifications (and their many exceptions) becomes easier when we recall that Bourgault's conviction that the modes were 'a powerful expressive means for a composer-creator' preceded his major period of fieldwork. As he had written to Burnouf in July 1874, 'Today I feel justified in my love for ancient modes by an array of scientific and historical evidence'.[16] As in so much Indo-Europeanist research, the conclusions preceded, and helped to sculpt, the data.

Similarly, Bourgault's earliest experiments in arranging and performing Greek melodies for French audiences took place even before he left for his official Greek mission in 1875. He tested the waters by performing his arrangements in intimate settings of friends and relations; he wrote to Burnouf late in 1874: 'I've played for some friends, together with Miss Suzanne [one of Burnouf's two daughters] a few of the Greek melodies I notated; they are being recognised as precisely what they are: striking, original, unlike anything anybody is familiar with.'[17] Just as he had begun sharing his scholarly ideas in gatherings of learned societies, Bourgault trialled his arrangements for friendly salon audiences. Reviews from 1877–78

[16] Letter dated 24/vii/1874, F-NAbud, fonds Émile Burnouf; 'Je me sens aujourd'hui soutenu dans mon amour pour les modes antiques par un ordre de faits scientifique et historique'.
[17] Letter dated 3/x/1874, F-NAbud, fonds Émile Burnouf; 'J'ai joué ici à quelques amis quelques uns des airs grecs notés par moi avec collaboration de Melle Suzanne, on les trouve ce qu'ils sont: piquants, originaux, ne ressemblant à rien de ce qu'on connaît.'

suggest the flavour of these presentations, for which Bourgault curated programmes to demonstrate the 'intimate filial relationship between ancient music, plainchant, Greek ecclesiastical music, and popular songs of the Orient'.[18] Selections from the *Trente mélodies populaires* were sung by unnamed 'dames du monde' known to another reviewer as 'Mmes. P et B', with Bourgault at the piano; some songs were encored.[19] The two reviewers from April 1877 expressed slight wariness over the musical value of the Greek melodies – each noting the unpleasant frequency of augmented seconds, among other gripes – yet this distaste, attributed to the raw Greek materials, appeared only to reinforce the reviewers' appreciation of Bourgault's research and increase their admiration for his discerning harmonisations. The reviewer in June 1878 remarked that Bourgault's theory of the potential of ancient modes for modern music remained 'highly controversial' among reputed composers (although it is plausible that this line was stirred up by Bourgault himself as a means of generating further interest).[20] Bourgault thereby cleared a discursive space in which he could experiment with nonstandard practice, legitimated by scientific framing and shielded from criticism on aesthetic grounds by its ostensible fidelity to its source and to systematic principles of harmonisation.

During the same period, Bourgault also began testing the potential for exploiting the 'modality' of Greek songs in original compositions. Throughout these efforts, he maintained his distinct aim to use the music of the past in the service of the music of the future – taking umbrage with those who mistakenly believed he was engaged in a project of restoration.[21] Bourgault composed what he called a new 'hymn to Brittany' (*À ma Bretagne*) in the dorian mode – a mode considered, following in the thinking of philologist Karl Ottfried Müller, the 'purest expression of Hellenism'[22] – which had given him such joy in his early experimentation, and which he considered the most difficult mode for polyphonic

[18] N.a., 'Concerts et auditions musicales', *Revue et gazette musicale*, 1/iv/1877, 102; '...les rapports intimes de filiation qui existent entre la musique antique, le plain-chant, la musique ecclésiastique grecque et les chants populaires de l'Orient'.
[19] 'Mme. B' was likely Bourgault's wife, Marie-Joséphine, who interpreted some of Bourgault's songs at his conference at the 1878 Exposition.
[20] Henri Cohen, 'Mélodies populaires de Grèce et d'Orient', *L'Art musical*, 5/iv/1877, 110; 'Nouvelles diverses', *Revue et gazette musicales*, 7/vii/1878; 'fort controversée'.
[21] Letter dated 'Lundi matin' [1876], F-NAbud, fonds Émile Burnouf; 'Quelques personnes de l'auditoire, qui avaient lu mes articles sur l'Orient, ont cru que j'avais voulu faire de la musique grecque.'
[22] Corbier, 'Karl Otfried Müller and Konstantinos Paparrigopoulos: Dorism, Music, and Greek Identity', 15.

composition.[23] The work was well received in Nantes, as he reported to Burnouf: 'If [the reaction] were to be the same in Paris, and if these borrowings from the music of the ancients please the public, there will be a rich mine to exploit, all the more rich as nobody has done it before.'[24]

As he tried to import 'modality' into original compositions, Bourgault continued to rely upon various strategies of legitimation. One such strategy is the tactical use of paratexts – a linchpin in his pivots between realms of 'musicology' and 'composition'. Ranging from the full-blown preface of Bourgault's song collections to titles, marketing materials, and labels or footnotes within scores themselves, Bourgault's paratexts help 'authenticate' his novel compositional techniques. The power of paratexts, and Bourgault's skill in wielding them, is evident in 'Primavera (Solitude)', one of his earliest original compositions following the Greek mission. The melody was not a direct transcription of what he heard in Greece, but rather a second-order extrapolation of Greek modes, likely informed by Gevaert's volume. Bourgault boasted to Burnouf, 'I've made clear use of the ancient chromatic. It is the 1st time I believe that anyone has used it in our day. The effect was much appreciated by a number of people.'[25] In this song, as in the folksong arrangements, Bourgault placed compositional emphasis on the peculiarity of the pitch set. Here, the final line of each verse slithers down the mode's alternating semitones and thirds (Fig. 5.6); it must have been tricky for the singer.[26] Again, Bourgault leaned on the scientific basis of the song's construction to stir public interest, as exemplified by this publicity blurb in *Mélusine*:

> This song is connected to the research of ancient modes, employing a melodic scale unused among modern composers: that of the *ancient Chromatic*. This scale is highly remarkable, because the presence of four semitones in the octave causes the systematic suppression of two notes of the scale: G and D in the key of A. This results in a special

[23] On the difficulty of writing polyphonically in the dorian mode, see *Trente mélodies populaires de Grèce et d'Orient*, 45. It is interesting, and suggestive, that Bourgault composed a 'hymn to Brittany' at this early stage, a few years before he publicly emphasised the 'aryan' continuity between the Greeks and Bretons.
[24] Letter dated 18/vii/[1875], F-NAbud, fonds Émile Burnouf; 'S'il en était de même à Paris, et si ces emprunts faits à la musiques des anciens, plaisent décidément; il y aura là une riche mine à exploiter, d'autant plus riche que personne ne l'a fait encore.'
[25] Letter dated 18/vii/[1875], F-NAbud, fonds Émile Burnouf; 'Entr'actes, une mélodie où j'ai fait un franc usage du chromatique antique. C'est la 1re fois je crois qu'on l'emploie de nos jours. L'effet en a été très goûté par plusieurs personnes.' The mode in which the work is composed corresponds to those described in Gevaert's *Histoire et théorie de la musique de l'antiquité* (see insets following pp. 273, 279).
[26] Bourgault expressed his delight at Suzanne Burnouf's error-free performance of the song one evening in a letter to her father. Letter dated 'Jeudi 26 1877', F-NAbud, fonds Émile Burnouf.

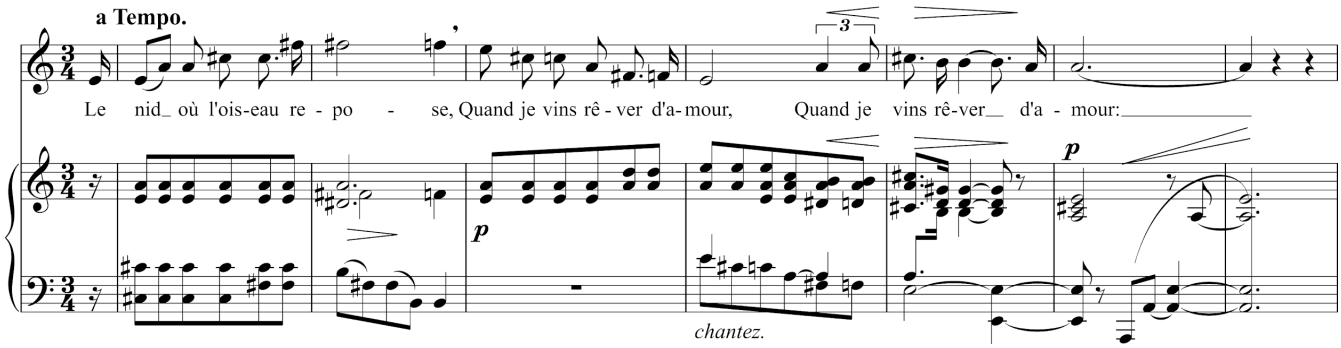

Figure 5.6: From Bourgault's original song, 'Primavera (Solitude)', bb. 22–8, featuring the 'ancient chromatic' mode, as advertised.

> shading, which renders to good effect the sentiment of the poetry in the passage where it is used.[27]

At this stage, it is noteworthy that Bourgault's earliest compositional extrapolations of Greek modality bear no apparent programmatic connection to Greece, in either a classicist or orientalist sense. Even his earliest brainstorms of 1874 lack any programmatic intention. As he wrote to Burnouf, 'What a symphony one could make with this, if only one were a little Beethoven!'[28] The Édouard Turquety poem to which 'Primavera (Solitude)' is set has no particular 'classical' or 'oriental' theme, and Bourgault's music betrays no 'local' or 'antique colour'. To my mind, this suggests that Bourgault's primary objective with respect to 'modality', at least in these early experiments, was abstracted from notions of how one might represent ancient or modern Greek topics, and more focused on questions of technical innovation in musical composition. In fact, the linking of Greek modality to a Greek topic appears only to have come at others' instigation: as Bourgault remarked to Burnouf in an 1877 letter, 'I am thinking about your idea to do something with Greek themes, on a Greek subject'.[29]

Bourgault's *Carnaval d'Athènes*, composed in the wake of the 1878 exposition and published in 1881, was a step in that direction (Fig. 5.7). Bourgault was inspired not only by Burnouf's

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[27] *Mélusine: revue de mythologie, littérature populaire, traditions et usages* (1878), 368; 'Cette mélodie se rattache aux études dont les gammes anciennes sont l'objet, par l'emploi d'une échelle mélodique inusitée chez les modernes: celle du *Chromatique antique*. Cette échelle est fort remarquable, car la présence de quatre demi-tons dans l'octave entraîne la suppression systématique de deux notes de la gamme: sol et ré dans le ton de la. Il en résulte un coloris spécial, qui rend bien le sentiment de la poésie, dans le passage où il en est fait usage.'

[28] Letter dated 3/x/1874, F-NAbud, fonds Émile Burnouf; 'Quelle symphonie on pourrait faire avec cela, si l'on était seulement un petit Beethoven!'

[29] Letters dated 28/vii/1877, F-NAbud, fonds Émile Burnouf; 'Je pense à votre idée de faire quelque chose avec des motifs grecs, sur un sujet grec'.

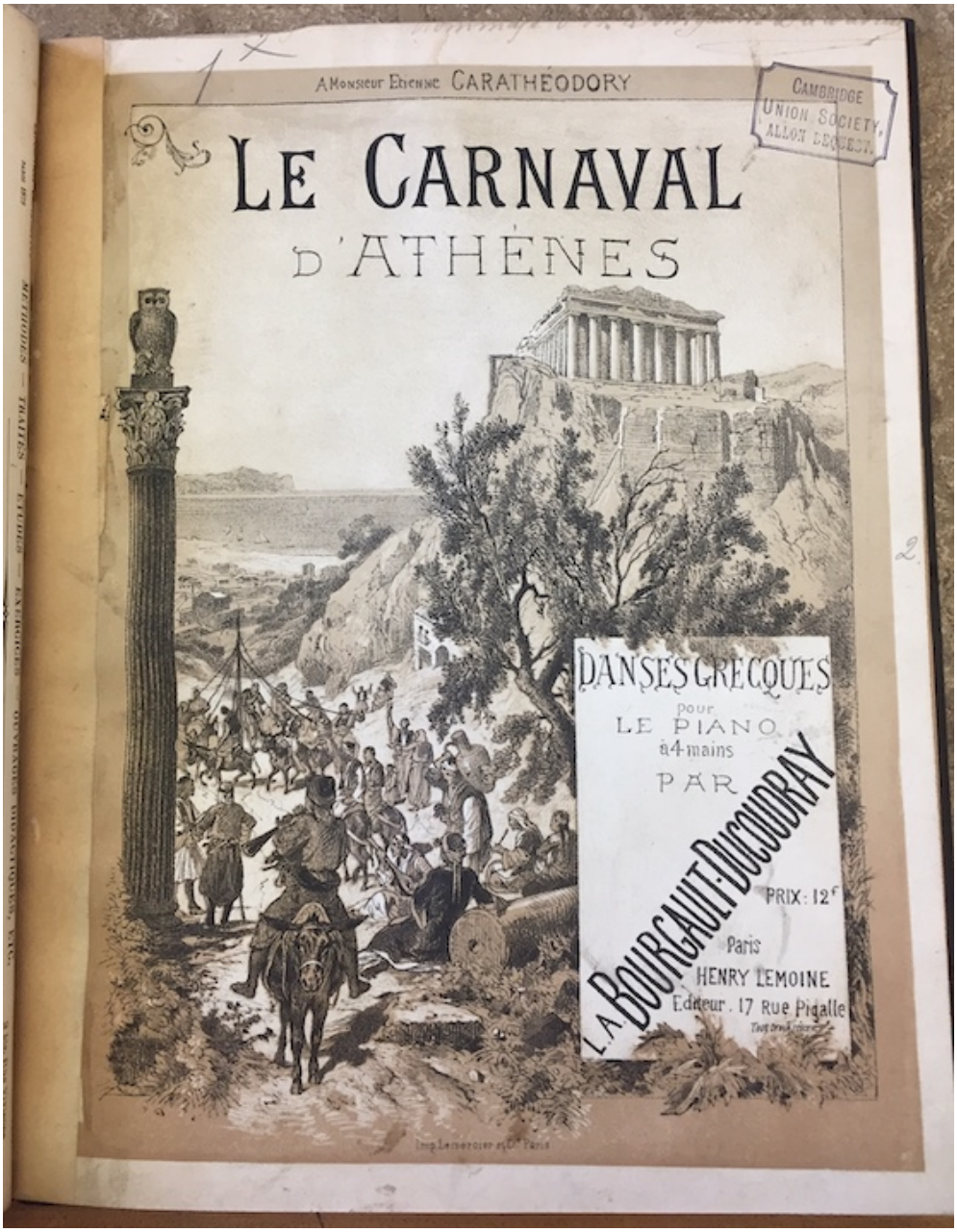


Figure 5.7: The evocative cover page of Bourgault's *Carnaval d'Athènes*
Photographed by the author, GB-Cu, MRS 26.34.

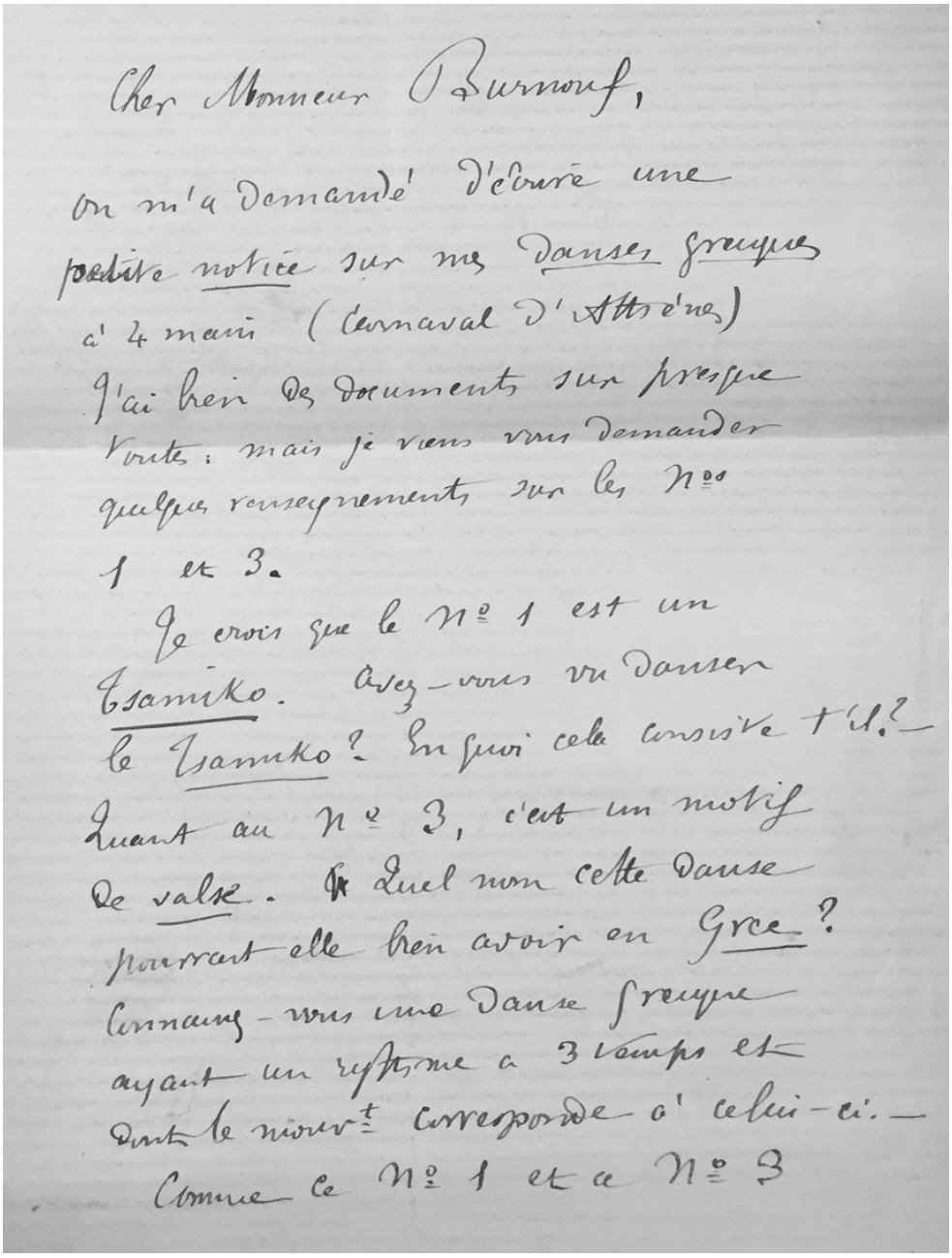
suggestion, but also by the example of the Mighty Handful, whose own appropriation of Russia's folk music Bourgault had heard firsthand at the exposition and had read about through the writings of Rimsky-Korsakov and César Cui.[30] The *Carnaval,* a suite of four dances, inhabits the grey area between arrangement and original work; Bourgault's negotiation of this liminal zone, and in particular the attention he paid to paratextual markers,

[30] See Groote, *Östliche Ouvertüren*, 238–58. Samuel Baud-Bovy reasonably conjectures that the *Carnaval d'Athènes* was more directly inspired by the Russian music Bourgault heard at the 1878 exposition ('Bourgault-Ducoudray et la musique grecque ecclésiastique et profane', 159).

is revealing. Bourgault provides a colourful preface (partially excerpted from *Souvenirs*) recounting his fieldwork during the 1875 carnival celebrations, during which he doggedly pursued a melody by following a procession through the rain until he had memorised it and could 'savour [his] conquest' at the piano. Adopting the stance of an archaeologist, he describes the Greeks' 'passion' for flutes (and gaiters) as 'living vestiges of antiquity', and identifies the melody of the second dance as a 'perfect specimen of the ancient *conjunct* system'.[31] Though the preface of the *Carnaval* is far less thorough than that of the *Trente mélodies*, its essential purpose is similar: to authenticate the music's provenance, thereby legitimating Bourgault's modal (and metrical) experimentation. As with 'Primavera (Solitude)', the marketing material amplified Bourgault's aims: 'Mr Bourgault-Ducoudray, a scholarly musician of great sensitivity, reproduced these dances, respecting in their accompaniments the songs' antique "modal" constitution.'[32] On the other hand, the triumphal return of the opening dance at the end of the fourth movement gives the work a formal cyclicality that nudges it in a quasi-symphonic direction and shows more compositional craft than transcriptive rigour, rather like the injection of cyclicality seen above in the Greek folksong collection.[33]

However, a peek behind the curtain exposes the fragility of Bourgault's construction of authenticity. In 1883, tasked with preparing a programme note for the work, Bourgault sought some clarification from Burnouf (Fig. 5.8): 'I'm coming to you to ask for some information on Nos. 1 and 3. I believe that No. 1 is a Tsamiko. Have you seen the Tsamiko danced? What does it consist of? Regarding No. 3, it's the rhythm of a waltz. What name might this dance have in Greek? Do you know a Greek dance with a three-beat rhythm and with a tempo that corresponds to this one?'.[34] He asked again, five years later:

[31] Bourgault-Ducoudray, *Le Carnaval d'Athènes*, 1; 'grâce à mon piano, je pus savourer ma conquête'; 'vestiges encore vivants de l'antiquité'; 'Cet air est un spécimen parfait du système *conjoint* antique' [Bourgault's emphasis].
[32] *Le Figaro*, 13/vii/1881, 2; 'M. Bourgault-Ducoudray, musicien érudit et d'un tact extrême, a reproduit ces danses, en respectant dans les accompagnements l'antique constitution "modale" des chants.'
[33] Another example in which Bourgault uses paratexts to 'perform authenticity' is in his rearrangement of song No. 29 for violin and piano, published separately as *Anisykhia* (1881). To his original song arrangement, Bourgault added a middle section, framed in the score by two 'coda' symbols, and annotated thus: 'Le passage compris entre les deux signes est l'œuvre du transcripteur'. By going out of his way to introduce, and demarcate, a passage of original composition, Bourgault asserts, by implication, the transcriptive fidelity of the framing music.
[34] Letter dated 24/xi/1883, F-NAbud, fonds Émile Burnouf; '...je viens vous demander quelques renseignements sur les Nos 1 et 3. Je crois que le No 1 est un Tsamiko. Avez-vous vu danser le Tsamiko? En quoi cela consiste-t'il? Quant au No 3, c'est un motif de valse. Quel nom cette danse pourrait elle bien avoir en Grec? Connaissez-vous une danse grecque ayant un rythme à 3 temps et dont le mouvement corresponde à celui-ci.'



Cher Monsieur Burnouf,

On m'a demandé d'écrire une petite notice sur nos danses grecques à 4 mains (Carnaval d'Athènes) J'ai bien des documents sur presque toutes : mais je viens vous demander quelques renseignements sur les Nos 1 et 3.

Je crois que le N° 1 est un Tsamiko. Avez-vous vu danser le Tsamiko? En suivi cela consiste t'il? Quant au N° 3, c'est un motif de valse. Quel nom cette danse pourrait-elle bien avoir en Grec? Connaissez-vous une danse grecque ayant un rythme à 3 temps et dont le mouvt correspond à celui-ci. — Comme ce N° 1 et ce N° 3

Figure 5.8: Letter 24/xi/1883 from Bourgault to Burnouf, asking for advice.
Photographed by the author, F-NAbud, fonds Émile Burnouf.

Dear Mr Burnouf,

Do you know the name of a Greek or oriental dance which could be applied to an air in 3 (in a waltz tempo)? I'm looking for names for the various movements of my *Carnaval d'Athènes*. No. 1 is a Tsamiko. No. 2 is a 'march of masks'. No. 3 … what to call it.

Syrto is in 2. Is it always in 2? There's also a dance called Kalamatiano. Is it the right character for my no. 3? No. 4 would be called Gaëtanaki (ribbon game).

> I should be much obliged if you could give me a name for my no. 3 which, in sum, is a waltz.[35]

Bourgault's search for the right label illustrates how authenticity, ultimately elusive, is instead constructed, or better yet, performed, through a constellation of paratextual codes and signals – titles, prefaces, terminology, publicity. The search for titles in *Carnaval d'Athènes* recalls Jacques Derrida's take on Austinian 'illocution'. Derrida observed that in order to function, speech acts must conform to recognisable models; yet by virtue of their recognisability, they become liable to imitation, and thereby, *forgery*.[36] In a compositional context informed by philological or anthropological research, paratexts such as Bourgault's do more work to 'perform' authenticity than any specific sonic quality: silent, they shape the way music is heard and received.[37]

Staging Indo-Europeanism from Brittany to Baku.

Le Carnaval d'Athènes was published prior to Bourgault's 1881 Breton mission – that is, prior to the expansion of his musical theories to a pan-aryanist scope. As his racial-essentialist conception of modality crystallised in his scholarship over the 1880s, so, too, was this reflected in his compositional work. Following in the spirit of his Breton collection in the mid-1880s, he broke ground on an opera based on his native region, with a libretto by Louis Gallet and Lionel Bonnemère recounting the story of Breton sculptor Michel Columb and Anne, Duchess of Brittany, set in the sixteenth century. The opera, initially baptised *Michel Columb*, was premiered in Brussels in 1887; Bourgault would later rework the opera, retitling it *Bretagne*.[38] Gringoire, author of a short life-and-works volume published during

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[35] Letter dated 19/vi/[1888], F-NAbud, fonds Émile Burnouf.

> Cher Monsieur Burnouf
>
> Connaissez-vous un nom de danse grecque ou orientale, pouvant s'appliquer à un air à 3 temps, (mouvement de valse)? Je cherche des dénominations pour les différents mouvements de mon Carnaval d'Athènes. Le No. 1 est le tsamiko. Le No. 2 est une "marche de masques" Le No. 3 … comment l'appeler.
>
> Le Syrto est à 2 temps. Est-il toujours à 2 temps? Il y a aussi une danse appelé Kalamatiano. Est elle dans le caractère de mon no. 3? Le No. 4 s'appellerait le Gaëtanaki (jeu de rubans).
>
> Vous m'obligeriez en me donnant un nom pour mon no. 3 qui en somme est un mouvement de valse.

[36] Derrida, 'Signature Event Context'.

[37] For the record, Baud-Bovy has argued that Bourgault's dance has 'aucun rapport avec le véritable *tsamikos*' ('Bourgault-Ducoudray et la musique grecque ecclésiastique et profane', 159).

[38] The composition and performance history of this opera has been traced in two overlapping, but distinct, unpublished dissertations by Noémie Pinard, both titled 'De la mélodie populaire à l'opéra: *Bretagne*, de Louis-Albert Bourgault-Ducoudray'. I refer to these texts as 'Pinard (2005)' and 'Pinard (2006)'. There are also references in the literature to the opera under the title *Anne de Bretagne*; however, this title was only applied posthumously, in efforts to disguise the work as a premiere and thus be eligible for regional operatic subsidies.

Bourgault's lifetime, quotes the composer's remarks about his plans: 'Seeking above all to give my music a *true* colour, I could not refrain from using the modes of ancient music and plainchant, nor could I suppress the special expressive effects that they produce.' With a nod to the Russian composers whom he admired, he continued,

> Following the example of more illustrious authors, I allowed myself to insert several local melodies into my work; but, as much concerned for 'unity' as for 'truth', I did not undertake to 'quote' melodies by reproducing them entirely; rather, I took particular inspiration from their construction and turn of phrase, to draw out of my own stock melodies created in their image.[39]

By 'construction' and 'turn of phrase', Bourgault was predictably alluding to the 'modal' structures by which he had analysed the songs and determined their relation to Greek music; his avowal of inspiration from their 'construction' is thus the trace of the philological mediation of his analytical methodology – now manifest as compositional strategy in the modal harmonisations which permeate the operatic score. And yet, despite Bourgault's denial of direct quotation, Noémie Pinard has found that Bourgault plainly cited melodies from his Breton song collection on two occasions in the opera – first, in the choral opening of Act II; and second, in the Act III *divertissement*, where the 'Chanson alternée' is rendered as instrumental music accompanying the dance sequence (Figs. 5.9*a–b*).[40] The gesture of quotation here is fairly straightforward, and in keeping with techniques of regional emplacement and evocations of folkloric colour practiced by Bourgault's forebears, such as Édouard Lalo's citations of Breton themes in *Le Roi d'Ys* of the previous decade – even as Bourgault adds complexity by juxta- and superposing the 'Chanson alternée' with another folksong, 'Ann hini goz',[41] and distinguishes his efforts further by his harmonisations in the Greek modes.

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[39] Gringoire, *L'oeuvre de L.-A. Bourgault-Ducoudray*, 28; '"cherchant avant tout à donner à ma musique une couleur *vraie*, je ne pouvais m'abstenir d'employer des modes de la musique antique et du plain-chant, ni repousser le effets [sic] particuliers d'expression qu'ils produisent. […] A l'exemple des plus illustres auteurs, je me suis permis d'insérer dans mon ouvrage plusieurs mélodies locales; mais soucieux de l''unité' autant que de la 'vérité' je ne me suis pas borné à 'citer' ces mélodies, en les reproduisant intégralement; je me suis surtout inspiré de leur construction et de leur tournure, pour tirer de mon propres fonds des mélodies créées à leur image."'

[40] Pinard (2006), 35–6.

[41] Ibid., 9, 36.

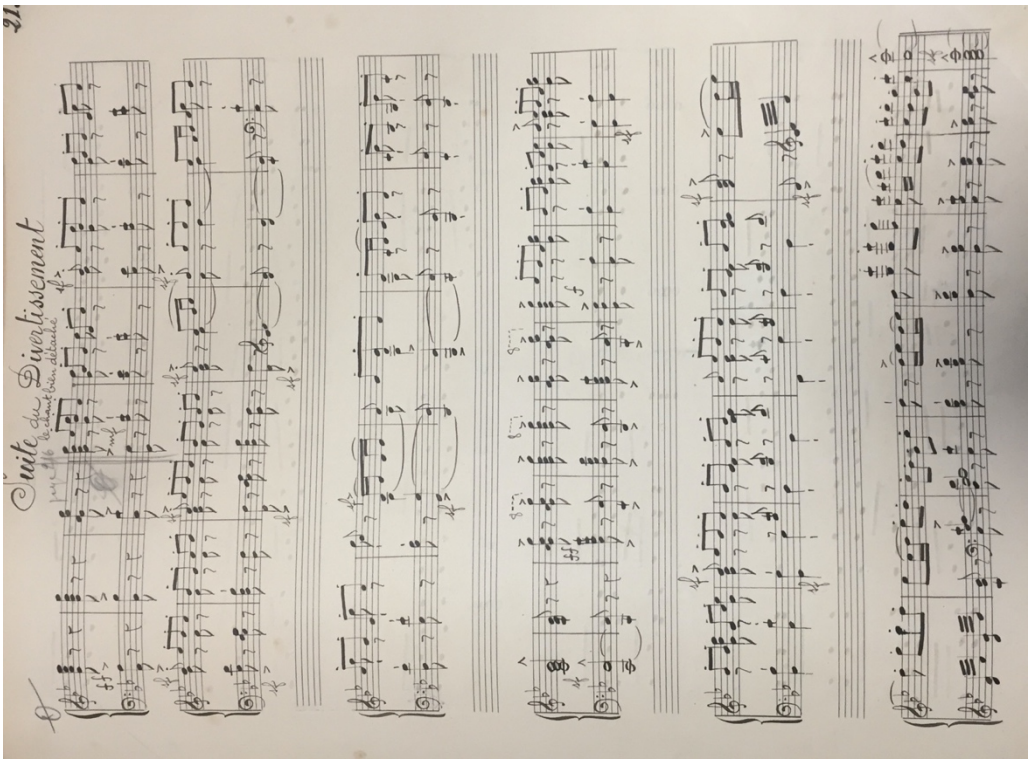

Figure 5.9*b*: Direct quotation of the 'Chanson alternée' in *Michel Columb*, Act III *divertissement*, piano-vocal score, fair copy. *Photographed by the author, F-REc, 4855 CNR*

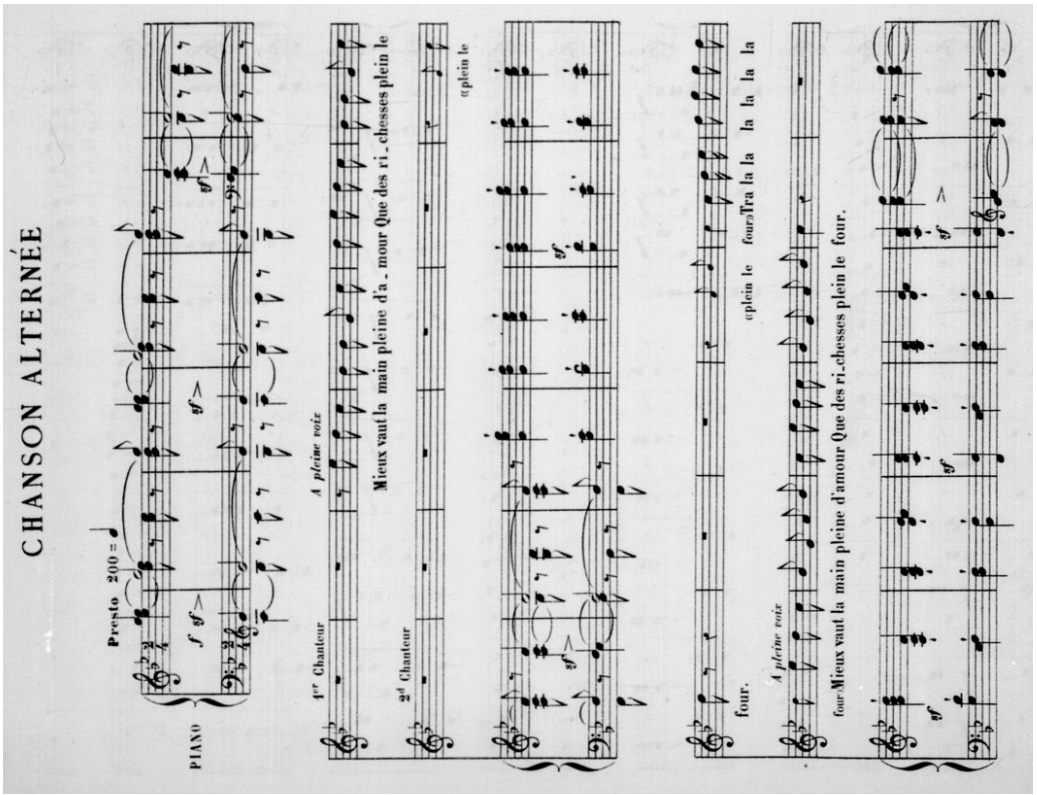

Figure 5.9*a*: 'Chanson alternée', from Bourgault's Breton collection (1885)

Although *Michel Columb* (or *Bretagne*) saw scattered revivals in Nantes and Rennes from the 1890s until the 1930s, it was never staged in the French capital. It was only with his next operatic project, *Thamara* (1891), that Bourgault achieved the début at the Opéra to which, as

a Prix de Rome laureate, he had long been entitled. As with *Bretagne*, Bourgault worked with librettist Louis Gallet, who had published 'Thamara: légende persane' as a short story in *La Nouvelle revue*, a prominent Republican periodical bringing together scholarship, politics, criticism, and literature, in 1881. The eponymous protagonist is a loose adaptation of the biblical Judith (whose episode was familiar to French operatic audiences[42]) set in the city of Baku. When the city is invaded by the Persian sultan Nour-Eddin, Thamara seeks to infiltrate his ranks, to save Baku from his domination. Like Judith, she heroically kills him; unlike Judith, she reciprocates his love, and subsequently kills herself in despair.

Thamara, I would argue, represents Bourgault's most sweeping articulation of Indo-Europeanism – as a realm of nationalism which extends beyond the *petite patrie* of Brittany, and even the French state, to encompass a vision of ancestral unity on a grand scale – reflected in both the musical and narrative content. This is not how the opera has generally been interpreted, however. With its setting in Baku and its Muslim invaders, the opera was received by most critics as a straightforward 'opéra oriental'; on these grounds, Gringoire contrasts it with *Bretagne* (*'Thamara! Bretagne!* Un opéra oriental! un opéra breton!').[43] The modality and metrical complexity of the score, noted universally in the critical reception, was disparaged by some as an excess of 'couleur locale' and even as '*musique turque*'.[44] But certain critics, like Camille Bellaigue, described Bourgault's primary techniques with greater precision:

> Mr Bourgault has only one dream, but one from which he never awakens: to introduce into contemporary art the rhythms and modes of antiquity, and, through them, to increase the abundance and the beauty of polyphony and orchestration, the two great resources of modern music. … Modes and rhythms, whether ancient or oriental, it's one and the same, with the Orient and along with it the nations 'sheltered from musical civilisation' having uniquely conserved the Greek traditions.[45]

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[42] See Pasler, 'Politics, Biblical Debates, and Judith in French Dramatic Music after 1870'. According to Valeria Wenderoth, Thamara may also refer to a historical personage (the twelfth-century Queen Tamar of Georgia), who 'fought powerful Persian armies and defeated Muslim invaders throughout her entire life' ('The Making of Exoticism in French Operas of the 1880s', 129).

[43] Gringoire, *L'oeuvre de L.-A. Bourgault-Ducoudray*, 32. A reviewer in *L'Indépendance belge* described Thamara as 'une Judith orientale, une Jeanne d'Arc de Coran!' (25/xii/1891, 2),

[44] Victor Wilder, in *Gil Blas*, 30/xii/1891.

[45] Bellaigue, *L'Année musicale* (1892), 42–3; 'M. Bourgault n'a qu'un rêve, mais dont il ne s'éveille jamais: introduire dans l'art contemporain les rythmes et les modes antiques, et, par eux, accroître l'abondance et la beauté de la polyphonie et de l'orchestration, ces deux grandes sources de la musique moderne. ...Modes et rythmes antiques ou orientaux, c'est tout un, l'Orient et avec lui les pays "*à l'abri* de la civilisation musicale" ayant seuls conservé les traditions de la Grèce.'

Broadly, Bourgault's compositional strategies in *Thamara* with respect to the logic of using ancient modes and rhythms resemble those of *Bretagne*, supplemented perhaps only by a more specialised approach to orchestration.[46] Taking this affinity as a point of departure, I would propose a closer reading of *Thamara* which complicates exoticist readings through the ideology of Bourgault's aryanism.

In one of the rare musicological readings of *Thamara*, Valeria Wenderoth has rightly observed the contrast between the heroine, 'with which the French public shares religious and patriotic sentiments', and the antagonist, Nour-Eddin, who 'embodies all the traditional characteristics of the exotic', an apparent disjuncture between two 'exotic others' which she does not easily resolve.[47] Wenderoth attributes the dense use of ancient Greek modes in Bourgault's score to a stab at 'local colour', suggesting that Bourgault 'promoted Otherness by using Greek music, which he considered Oriental enough to represent ancient Persia'.[48] Yet a more complex reading, which takes into account Bourgault's compositional rhetoric and intellectual interlocutors, is possible – and the key might lie in an aryanist construction. Some evidence for this reading comes from Gallet's short story itself. Gallet distinguishes, in his 'légende persane', between the 'Parsis' – the inhabitants of the 'sacred city' of Baku – and the 'Perses', the besiegers led by Nour-Eddin.[49] The 'Parsis' are, notably, ancient 'Indo-Europeans' associated with the Avesta, the Avestan language, and Zoroastrianism, who had been the focus of important translations and studies by Anquetil-Duperron and Eugène Burnouf; the 'Perses', meanwhile, had been conquered by Arab Muslims in the seventh century. Curious readers of Gallet's story, were they not already aware, could learn from Émile Burnouf's *Science des religions* (or any number of sources) that Zoroastrianism represented 'one of the most original and also most grandiose productions of the pantheistic spirit of the aryans'.[50] Gallet refers only sketchily to their ancient religion, describing the

[46] In the dance sequence opening Act II, Bourgault calls for the onstage use of instruments called the 'dayéréh' and the 'dombèque' (76). I have not determined Bourgault's source for information regarding these instruments. The 'dâireh' is described in Fétis's *Histoire générale* as a medium-sized Persian 'tambour de basque' or tambourine (II, 411–12); according to the orchestral parts for *Thamara* (F-Po, MAT-462), a 'tambour de basque' was used alongside a 'dombèque'.
[47] Wenderoth, 'The Making of Exoticism in French Operas of the 1880s', 126.
[48] Ibid.
[49] Gallet, 'Thamara', 598.
[50] Burnouf, 'La Science des religions', 154; 'une des productions les plus originales et aussi les plus grandioses de l'esprit panthéiste des Aryens'. It is contextually relevant to note the creation of another Persianist opera in composed in 1891, Massenet's *Le Mage*; here, too, the Iranians are portrayed as Zoroastrians, up against the brutal 'Touraniens'; as Camille Le Senne summarised the plot, 'l'opposition de deux religions, l'une brutale, l'autre toute de simplicité et de pureté' (*EMDC*, V, 1739).

temple in which the Parsis 'invoke, in vain, the master of the world, the sun – the star-god…',[51] an allusion to the solar worship which comparativists Max Müller (whose work was propagated in France notably by Michel Bréal*) and George Cox (whose work was translated and published in several editions by Mallarmé) believed to be an aryan mythological archetype.[52] To add to this, there had emerged widespread consensus among philologists and anthropologists that the proto-Indo-European group had its ultimate geographic origins somewhere in the Caucasus, the region in which the action of *Thamara* is set.[53] The central Asian origin of the proto-Indo-Europeans is strung throughout Burnouf's *Science des religions* (including in the chapters Bourgault particularly favoured).[54] One might, by extension, read Bourgault's *Thamara* as a projection of musical constructions of hellenism and aryanism onto the region that had, in the minds of some, replaced India as the 'cradle of the race' – as Bourgault called it, 'Bakou la Sainte, au bord de la mer Caspienne'.[55] In this reading, the 'Judith' of *Thamara* is de-semitised, and proto-hellenised.

Thamara may, therefore, constitute an extension of Bourgault's longstanding desire to compose an opera on a Greek theme; having first discussed the idea with Burnouf in 1877, Bourgault reaffirmed his intention again a decade later, still giving Burnouf credit: 'The idea of a ~~greek~~ Greek opera would be of great use to me'; and again six months later, 'Yes, you are right, I must write an opera in light of this new information.'[56] One more datum offers further evidence of this hellenistic reading of *Thamara*. In the final pages of the opera, as Thamara prepares to take her own life, we catch what appears to be a flickering rearrangement of the first melody from his Greek collection (Figs. 5.10*a–c*). (Is it a coincidence that the original lyrics to this melody in the Greek collection are 'Sleep, my daughter'?) The quotation of the transcription is not demarcated or labelled by a paratextual marker – as were so many folk

[51] Gallet, 'Thamara', 598.
[52] According to Stefan Arvidsson, the notion that the 'Indo-European religion was a cult of sun and light' was held by Schlegel, Pictet, and K. O. Müller, before Max Müller's methodology of comparative mythology effectively supported and popularised it (*Aryan Idols*, 78). Bourgault had previously evoked Zoroastrian imagery in a 'Hymne au feu sacré' for choir, composed in 1883.
[53] See, e.g., Reinach, *L'origine des aryens*, 32, 52, 54, and *passim*.
[54] See, e.g., Burnouf, *La Science des religions*, 311, 331, 346; and another book which Bourgault read, *Histoire de la littérature grecque*, i, 6; or even Paris, 'De l'étude de la poésie populaire en France', 4 (the article which neighbours Bourgault's in the first issue of *Mélusine*).
[55] Burnouf, *La Science des religions,* 311, 'berceau de la race'; Bourgault-Ducoudray, *Thamara*, 1. I have not managed to find any other contemporaneous references to Baku as 'holy'; searches in the historical press for 'Bakou-la-Sainte' invariably lead back to Bourgault's opera. Baku is, however, the site of the Ateshgah, a site of Zoroastrian and Hindu worship.
[56] Letter dated 21/v/1886, F-NAbud, fonds Émile Burnouf; 'L'idée d'un opéra ~~grec~~ Grec me servirait beaucoup'; see also letter dated 11/xi/[1886]: 'Oui vous avez raison, il faudrait faire un opéra dans ces données nouvelles'.

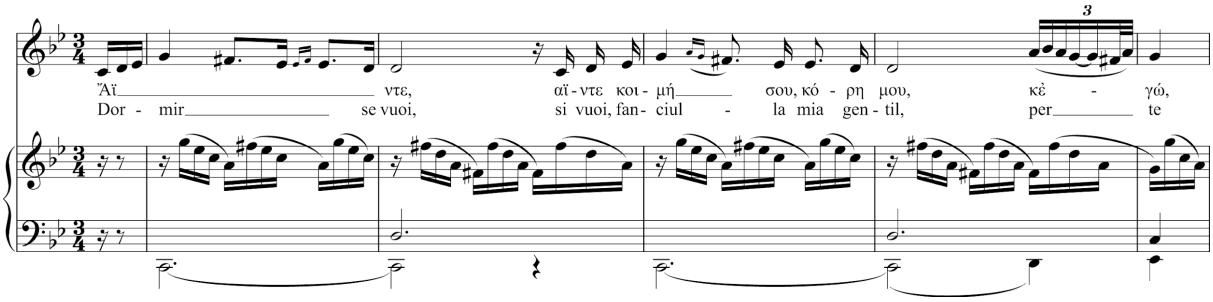

Figure 5.10*a*: Bourgault's Greek melody No. 1, opening bars.

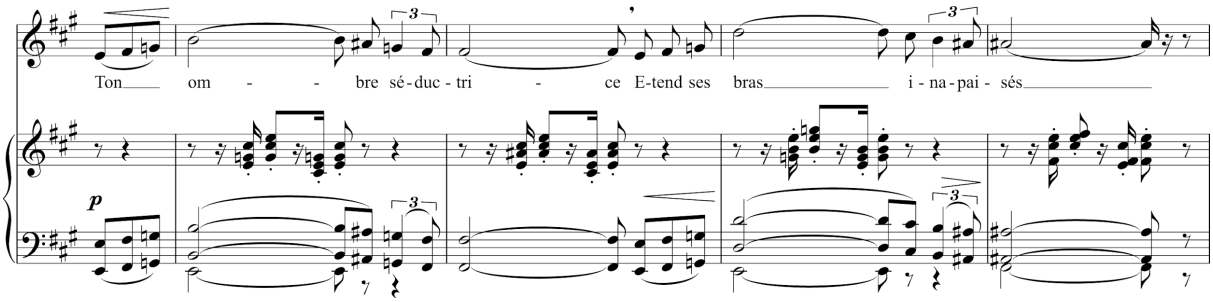

Figure 5.10*b*: Thamara's melody in the final scene of *Thamara*.

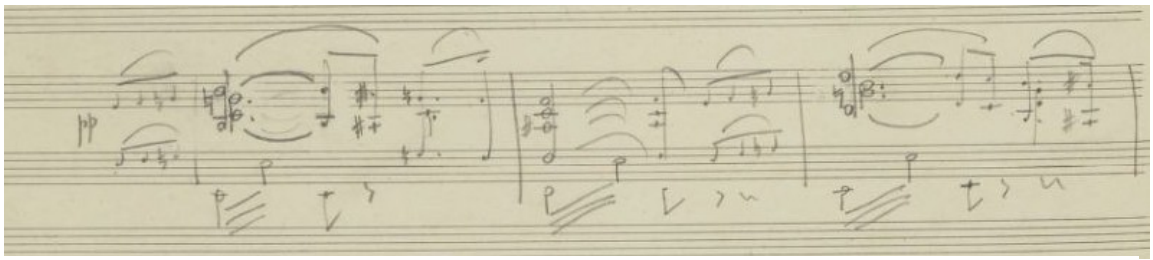

Figure 5.10*c*: Thamara's melody, sketched in pencil on the back of a page of the manuscript piano-vocal score (p. 45v). The dotted rhythms, which became triplets in the final version, even more closely resemble Bourgault's Greek melody.
Source: gallica.bnf.fr / BnF (IFN-10026883)

melodies quoted in *fin-de-siècle* French opera – nor is it complete, or a standalone number, as in *Michel Columb*. Rather, it emerges forth from the 'modal' woodwork which perfuses the score, only to recede once again, as Bourgault develops the theme into a new direction.[57] But

[57] Bourgault's epistolary friend, Mily Balakirev, had also sent Bourgault some (imitations of) Caucasion melodies for use in *Thamara*. Bourgault considered these Caucasian melodies 'precious' and claimed to have used them in the introduction and for the character Khirvan (leader of the Parsis); however, Adalyat Issiyeva has been unable to locate any quotations of Balakirev's transcriptions, as preserved in his sketches, in Bourgault's final opera (See Issiyeva, 'Russian Orientalism', 232–3, 255; 'Nikolai Rimsky-Korsakov and His Orient', 171–2n17. See also Balakirev's letters to Bourgault in Balakirev, *vospominaniia i pis'ma*, 204–33, esp. 206; my thanks to Beau Gabriel for summarising these untranslated letters for me.) Balakirev's own symphonic poem, also (coincidentally) titled *Tamara*, had been premiered in Paris thanks to Bourgault's advocacy in 1882 (Montagu-Nathan, 'Balakirev's Letters to Calvocoressi', 358; Balakirev, *vospominaniia i pis'ma*, 226–7).

the absence of a label bespeaks Bourgault's overarching musical goal: the coalescence of popular melody, ancient modality, and modern composition into a common 'national' musical language. *Thamara*, therefore, is the ultimate realisation of Bourgault's 'performances' of authenticity and innovation – years of 'speech' made into 'act' – by which he *forged* (in the fullest sense) into being the very premises he had long preached: the continuity of ancient Greek and modern French music.

With these factors in mind, we might better understand the Grecian iconography of the production design, with the emblematically classical columns of its architecture, or the gowned Thamara's victorious pose (Fig. 5.11); and we might more clearly grasp why the Nantais critic Daniel d'Arthez felt that '*Thamara* belongs to the purest of Greek art', or why Camille Bellague, at the opera's 1907 Parisian reprise, concluded that 'this exotic is a classic'.[58] In other words, in light of the aryanist resonances, we might conceivably read *Thamara* as a nationalist opera instead of (or in addition to) an orientalist opera. Burnouf's own reaction to the opera was clearly positive, and Bourgault communicated his gratitude to his old friend: 'What you say to me about my teachings, about the principles I defend and about my attempt to apply them in Thamara, has gone straight to my heart. Your encouragements strengthen me. I consider them as a sort of "deposit" toward definitive success.'[59]

Conclusion.

Thamara might have made a bigger splash were it not for certain contingencies: its début run at the Palais Garnier, for example, was curtailed after five performances due to the change of management that year.[60] *Thamara* was staged at the Théâtre Graslin in Nantes in 1895 – a challenge to which the provincial company rose, judging by Bourgault's pride in the performance and the enthusiastic press coverage.[61] The success in Nantes contributed to the

Balakirev also sought Bourgault's help to publish *Tamara* in Paris, hoping to use the proceeds to fund a statue of Chopin, although this publication appears not to have taken place.

[58] Daniel d'Arthez, 'Chronique Théâtrale', *L'Ouest-artiste*, 27/iv/1895, 4; '*Thamara* appartient à l'art grec le plus pur'; Camille Bellaigue, 'Revue musicale – Trois opéras d'Extrême-Orient', *Revue des deux mondes* 38, 217; 'cet exotique est un classique'.

[59] Letter dated 24/xii/1893, F-NAbud, fonds Émile Burnouf; 'Ce que vous me dites de mes leçons, des principes que je défends et de leur tentative d'application dans Thamara m'a été droit au coeur. Vos encouragements me fortifient. Je les considère comme une sorte "d'à-compte" au succès définitif.'

[60] At least, this was the reason relayed by Étienne Destranges in *Consonances et Dissonances*, 4.

[61] See Bourgault's letters to Destranges; F-Nm, Ms. 2643.

Figure 5.11: Thamara's victorious pose, illustrated for the press by Édouard Zier.
Source: gallica.bnf.fr / BnF (IFN-53118093)

decision of Pedro Gailhard, who had since been reinstated as director of the Opéra, to reprise *Thamara* in Paris in 1907.[62] Bourgault, long embittered by *Thamara*'s lack of traction, felt vindicated at last: following the opening of the new production, he wrote to Destranges, 'I've been avenged of the sufferings and wounds I've previously endured, by a press unanimously full of praise.'[63] Yet this run lasted only one show longer than the first, with *Thamara*'s eleventh and final performance taking place on 14 July 1907.

Even as success at the box office eluded Bourgault, his compositional craft was admired among those who studied his score and wielded a pen. Bellaigue, suppressing any doubts he had in 1893, wrote that 'among the works of the French school in the past fifteen years, *Thamara* deserves a more than honourable rank. It would be a shame should public taste once again fail to accord it such a position.[64] Destranges was even more decisive, writing that

[62] Letter to Destranges dated 22/vii [year uncertain], F-Nm, Ms. 2643.
[63] Letter to Destranges dated 31/i/1907, F-Nm, Ms. 2643; 'J'ai été vengé par une presse unanimement élogieuse des souffrances et des blessures endurées jadis'.
[64] Bellaigue, 'Revue musicale – Trois opéras d'Extrême-Orient', *Revue des deux mondes*, 38 (1907), 219; 'parmi les œuvres de l'école française en ces quinze dernières années, la *Thamara* de M. Bourgault-Ducoudray mérite

Thamara 'is, without contest, the most remarkable of scores put on at the Académie Nationale de Musique. Until *Thamara*, that clause in the rulebook had yet to produce any truly serious result.'[65] Neither Bellaigue nor Destranges nor any other reviewer failed to notice the work's exploitation of modality, a quality which had become practically synonymous with Bourgault's name. Importantly, however, Bourgault's erudition was not considered to detract from his artistry; as Bellaigue put it, Bourgault's musicianship is twofold: 'by knowledge and sentiment, by science and love. That which, for others possessing only half of his gifts, would be a subject of archaeological research, of dead, abstract study, he has made into an original and fecund ingredient, the mind and soul of his works, very much alive.'[66] And perhaps more significant from the perspective of compositional history is the respect *Thamara* held among fellow composers – including Bruneau and Debussy, both of whom, in 1900 and 1901, felt the meritorious work had been unfairly renounced by unambitious institutions.[67] If Bourgault's *succès d'estime* did not become a reportorial mainstay, his methods would not be ignored by peers and colleagues.

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un rang beaucoup plus qu'honorable. Il serait fâcheux que le goût public hésitât encore une fois à l'y placer et à l'y maintenir.'

[65] Destranges, *Consonances et dissonances*, 280; 'L'opéra de M. Bourgault-Ducoudray est, sans conteste, la plus remarquable des partitions qui ont été imposées à l'Académie Nationale de Musique. Jusqu'à *Thamara*, cette clause du cahier des charges n'avait encore donné aucun résultat vraiment sérieux.' Destranges is referring to the clause in the Opéra's *Cahier de charges* requiring the institution to stage (at least) two new French works annually.

[66] Bellaigue, 'Revue musicale – Trois opéras d'Extrême-Orient', 216; 'par la connaissance et par le sentiment, par la science et par l'amour. Ce qui, pour d'autres que lui, n'ayant que la moitié de ses dons, serait un sujet de recherches archéologiques, d'études abstraites et mortes, il en a fait l'élément original et fécond, l'esprit et l'âme de ses œuvres vivantes.' Destranges praised similarly: '*Thamara* est l'œuvre d'un véritable artiste' (*Consonances et dissonances*, 280).

[67] Bruneau, *Musiques d'hier et de demain*, 225; Debussy, *Monsieur Croche et autres écrits*, 39.

CHAPTER 6

REREADING CLASSICISM AND ORIENTALISM AFTER BOURGAULT-DUCOUDRAY

In the long run, Bourgault-Ducoudray's career as a scholar outshone his compositional activities. Given longstanding models of music historiography based on plotting landmark works by canonised figures, it is easy to see how somebody like him has gradually been sidelined. Nevertheless, Bourgault left a deep imprint on French music history. Where then might we look to gauge the effectiveness of his attempts to 'innovate', through and beyond the musicological discipline, in French compositional practice?

To start, Bourgault's professorship accorded him valuable credentials which enhanced his authority; the prestige of the position was reflected in a salary matching that of composition professors Massenet, Delibes, and Guiraud, and exceeded only by that of the director.[1] However, while his history lectures were obligatory for students of composition and harmony since their inception, attendance among Conservatoire students was consistently poor. Furthermore, Bourgault's attempts to integrate modes into the basic solfège curriculum at the Conservatoire were quashed by director Ambroise Thomas (Bourgault's former professor), for whom 'innovation', musical or institutional, was not a priority.[2] It has become customary, in light of overwhelming testimony to this effect, to dismiss the possibility of any meaningful impact of his teaching upon his pupils.[3] However, we should not infer from these facts that Bourgault's role in shaping musical practice was minimal: rather, it can be traced via more complex routes and several crosscurrents, driven instead by individuals close to Bourgault – friends, colleagues, pupils – and requiring extra efforts of promotion and justification. For example, if history lectures rarely roused students, they were popular among the general public to whom they were open, often serialised in the musical press and read by fellow musicians and musically inclined historians. Bourgault also delivered talks outside the Conservatoire, such as a twelve-lecture series on 'La musique nationale' at the Salle des

[1] F-Pan, AJ[37] 12–13.
[2] Ellis, *French Musical Life*, forthcoming.
[3] Saint-Saëns, *Écrits sur la musique*, 440; Laloy, *La musique retrouvée*, 75; Koechlin is quoted in Clevenger, 'Debussy's Paris Conservatoire Training', 302; Inghelbrecht, *Mouvement contraire*, 288. Ambroise Thomas distributed notices, circulated in 1896, expressing his 'shock' at students' poor attendance (F-Pan, AJ[37] 83). Calvocoressi took an opposite view, suggesting that Bourgault's lectures were highly influential despite being optional and not offering the possibility of a Prix (*Musicians Gallery*, 138).

Capucines in 1892–3[4] or his courses at the Université des Annales, 1907–10.[5] Bourgault's song collections in particular provided a model by which to blend creative and philological practice, one which was emulated by future generations of advocates like Édouard Moullé, Maurice Duhamel, and Maurice Emmanuel.[6] Both the Greek and Breton collections remained canonical reference volumes in France and abroad; several of the songs were variously reissued in instrumental, orchestral, or choral arrangements; and the Breton collection was republished in several editions well into the twentieth century.[7] Furthermore, Bourgault's involvement in a range of musical activities immersed him in networks of peers, forging important channels of direct influence – such was the case with composers like Pierné and Saint-Saëns, as we shall see. And finally, even if students who attended his lectures were in the minority, certain individual pupils who did attend assiduously, such as Emmanuel and also Charles Koechlin, pursued their own important musical and scholarly careers, amplifying Bourgault's message in ways that were not fully felt until after his lifetime.[8] Through these and other channels, Bourgault's music and his methods became forces of concerted innovation, adapted and extrapolated by his peers, students, and readers.

Not least, Bourgault's melodies and methods were taken up directly by fellow composers. From the 1880s, a number of composers began engaging with his song collections, making conspicuous borrowings of his melodies in original music. These 'rearrangements' offer insights into the musical reception of his theories of Greek music and methods of 'modality' more broadly. In this chapter, I begin by demonstrating how, in their respective rearrangements of Bourgault's Greek songs, Alfred Bruneau emphasised their 'orientalism', while Camille Saint-Saëns emphasised their 'antiquity', each maintaining distinct elements of Bourgault's 'modal' approach.[9] Again, I pay due attention to both musical and paratextual

[4] Letter dated 27/xi/1892, F-NAbud, fonds Émile Burnouf. See also *Le Ménestrel*, 18/xii/1892, 407.
[5] Bourgault was apparently one of the more popular instructors at the Université des Annales, a self-styled 'université des jeunes filles'. His lectures there, which, with their emphasis on biography and live music, may be more akin to what we would call 'music appreciation', were transcribed and published in the Université's journal, *Conferencia*, and disseminated to bourgeois households across France.
[6] See, e.g., Moullé, *Cinquante chants populaires recueillis dans la Haute-Normandie*; Duhamel, 'Les 15 modes de la musique bretonne'; and Emmanuel, *Trente Chansons Bourguignonnes du pays de Beaune*.
[7] In particular, the reception of Bourgault's folksong arrangements by Russian, Spanish, English, and of course Greek musicians is further alluded to in the Conclusion of this thesis.
[8] Emmanuel's continuation of Bourgault's legacy has been discussed in Chapter 3. Regarding Koechlin, Liouba Bouscant has described him as 'l'un des plus parfaits élèves et héritiers de Bourgault-Ducoudray, faisant fleurir l'enseignement de ce dernier' ('Charles Koechlin conférencier', 88). See also Koechlin's unpublished paper, 'Bourgault-Ducoudray et le conservatoire', F-Pgm, fonds Charles Koechlin.
[9] Composers also borrowed and rearranged Bourgault's Breton songs, although these will not be the focus of this chapter. For example, Georges Marty borrowed three of Bourgault's Breton melodies for his ballet-pantomime,

cues in tandem, seeking evidence of how these techniques were imagined in both production and reception contexts. However, while the songs' Greek provenance is relevant in both of these cases, contexts of Indo-Europeanism do not appear central: in this sense, Bourgault's melodies became 'boundary objects', open to interpretive flexibility and recontextualisation. Following these cases, I consider the potential relevance of Indo-Europeanism in the production and reception of selected examples of 'modal' composition in the decades after Bourgault expounded his theories of Indo-European modality in the Breton collection.

Rearranging Bourgault.

The first composer to rework Bourgault's songs was neither Bruneau nor Saint-Saëns, but the adolescent Alexander Glazunov, who used Bourgault's collection as the basis for two *Ouvertures sur trois thèmes grecs* (Opp. 3 & 6) in 1882–83.[10] These overtures suggest that, beyond the unilateral flow of transmission traced in Groote's account, Bourgault's advocacy for the kuchkists was reciprocated.[11] Yet beyond the melodies, Glazunov's *Ouvertures* are mainly indebted to his Russian forebears: the clear model is Balakirev's *Overture on the themes of three Russian songs* (composed in 1858, but revised and published in 1882). The settings replace Bourgault's spartan modal arrangements with what Taruskin (referring to a contemporaneous work of Glazunov's) described as the 'mechanized transformation mill: new harmonizations, timbres, dance rhythms, tempi, all applied in standardized sequences.'[12] Glazunov duly credited his French and Russian prototypes through dedication of the first overture to Bourgault, the second to Balakirev – who, along with Glazunov's teacher Rimsky-Korsakov, provided advice to the young composer on the works.[13] While Glazunov does not incorporate Bourgault's arrangement strategies, these works remain evidence of the esteem with which Bourgault's work was held abroad, even as Bourgault admired the Mighty Handful in turn for their integration of folk-music materials into composition: in a letter to

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Lysic (1890), although he did not adhere closely to Bourgault's arrangement practices. Koechlin rearranged several of Bourgault's Breton songs for choral and orchestral performance in the twentieth century.

[10] Glazunov's first overture borrows Bourgault's Nos. 1, 20, and 25; his second overture, Nos. 5, 7, and 24.

[11] Groote, *Östliche Ouvertüren*, 238–58.

[12] Taruskin, *Stravinsky and the Russian Traditions*, I, 38. The so-called '*nega* undulation' (a.k.a. 'Kuchka Pattern' (KP)), defined as the 'reversible chromatic pass between the fifth and sixth degrees' (Taruskin, *Defining Russia Musically*, 168), is of particular interest here, supersaturating Glazunov's rearrangements in place of Bourgault's mainly 'diatonic' harmonisations. Taruskin identifies the 'KP' as a gesture of eroticised orientalist evocation, which might suggest a reception of the Greek songs by Glazunov as 'oriental'. However, Marina Frolova-Walker cautions against facile hermeneutical readings of the pervasive 'KP', which was often topically unmarked in earlier usage (*Russian Music and Nationalism*, 141–60).

[13] Wolfgang Eggerking, 'Preface'.

Bourgault, Glazunov referred to the 'incomparable collection…which we all admire in Russia'.[14]

Meanwhile, Bruneau and Saint-Saëns engaged with Bourgault's collection rather more critically. Each composer rearranges Bourgault's songs to remarkably different ends, with Bruneau taking steps to enhance the perception of the songs' 'oriental' provenance in *Kérim* (Opéra Populaire, 1887), and Saint-Saëns, that of their 'antiquity' in *Antigone* (Comédie française, 1893). In prefaces to each work, the composers express their debts to Bourgault's collection as the source of their borrowings, authenticating their melodies through appeals to his authority. Yet, unlike Glazunov, neither composer extracts the melodic transcriptions in isolation: in borrowing Bourgault's melodies, they also appropriate and magnify the distinct features of his arrangements, assimilating his idiosyncratic 'modal' harmonic technique to their constructions of authentic 'exotic' and 'ancient' soundworlds.

Bruneau had been taught by Massenet at the Conservatoire from 1879 until he was awarded the Prix de Rome in 1881 – a period during which he should have encountered Bourgault's history lectures (although it is difficult to know whether he actually attended them). *Kérim* (1885–86) was Bruneau's first operatic venture. In a preface to the vocal score, Bruneau notes: 'I have used in certain picturesque passages of this work some popular oriental melodies, which I developed, varying the rhythms and tempo according to the settings.' He credits two of the melodies, 'so artistically, so curiously gleaned', to Bourgault, and another two to Guillaume André Villoteau (of the *Description de l'Égypte*), and points to four pages of the vocal score where the melodies are introduced.[15] However, the statement is somewhat misleading: for one, the Villoteau selections are hardly popular 'mélodies' in the sense of the songs of Bourgault's collection (one is a transcribed call to prayer, while the other, consisting only of two notes in repeated alternation, is described by Villoteau as a 'chant funèbre').[16] Furthermore, while the ambit of the Villoteau melodies is constrained more or less to the two

[14] Alexander Glazunov, Letter to Bourgault-Ducoudray [ca. 1882], *John Wilson Manuscripts* <https://www.manuscripts.co.uk/stock/24253.HTM> [accessed 9 May 2020]; 'votre incomparable recueil "Mélodies de Grèce et d'Orient", que nous tous admirons en Russie'). An account of Bourgault's impact on Russian music which would complement Groote's remains to be undertaken. In addition to these Glazunov *Ouvertures*, it would include an appraisal of Balakirev's reception of Bourgault, as well as the imprint Bourgault's theories made on Russian folklorists (see below, Conclusion, note 12).

[15] Bruneau, *Kérim*, n.p.; 'J'ai employé dans certaines scènes pittoresques de cet ouvrage des mélodies orientales que j'ai développées et dont j'ai varié les rythmes et les mouvements au gré des situations'; 'si artistiquement, si curieusement glanées par M. Bourgault-Ducoudray'.

[16] See Villoteau, 'De l'état actuel de l'art musical en Egypte', 705 and 717.

indicated pages, Bruneau's borrowings from Bourgault form the musical basis for nearly the entire second (and longest) act of his opera. In addition to the prefatory note, Bruneau used another form of paratext – footnotes within the score itself – to label borrowings more precisely as 'Mélodie populaire orientale'. There is precedent for this, with folksong borrowings in particular – both in such recent memory as the 'Thème Breton' labels of Lalo's *Roi d'Ys*, and in more distant memory, such as the 'Thème russe' of Beethoven's Op. 59, no. 2 (although Bourgault – notably – did not employ such labels).

In *Kérim*, Bruneau borrowed Bourgault's melodies Nos. 3 and 4. No. 3, prosaically classed by Bourgault 'in the European major mode' on G, has a touch of melancholy: harmonised with a persistent chromatic incursion of D♯/E♭, it is used alternatingly as a passing tone and as a pivot to the dominant of the relative minor (*V*/*vi*). And No. 4, with its polymodal alternation of hypolydian and (modified) lydian, I have commented on at length in Chapter 5. Bruneau opened the second act with the latter (Fig. 6.1): he constructed a figure which succinctly encapsulates the polymodality of Bourgault's original with chords based on the lowest notes of each mode. One might pause to observe that Bruneau's extraction of G and F Major chords is a misreading of Bourgault's modal arrangement, insofar as the 'tonics' of the two modes are in fact C (not G) and F. I mention this not for the sake of pedantry, but because it exemplifies how 'surface' features of Bourgault's arrangements could be, and were, appropriated by subsequent composers independently of the full theoretical 'modal' apparatus.

These G and F Major chords are then interspersed with the opening of the melody, preserving Bourgault's arrangement (for now). The sequence of juxtaposed chords a tone apart is then further extrapolated to E and D Major chords, which are in turn alternated with the first pair. Bruneau plays further with the melody, chopping it up, superposing it on itself, and composing a new countermelody on top when the voices enter, singing 'Salam aleikoum'. These are only the first of Bruneau's many obsessive manipulations of the melody; by the end of the first scene, Bruneau has transposed the melody to the 'dorian' (or, 'mode de *mi*').[17] In this instance, the transposition substitutes a sourness in place of the song's original cheer; as if to maximise the estrangement, Bruneau ceases to bother with any functional harmony (Fig.

[17] The transposition of a given melody into a different mode in order to achieve a new effect by the reconfigured intervallic content was, after all, a technique Bourgault showcased at his 1878 exposition lecture. Recall that this modal nomenclature is different from modern usage; see Chapter 2, note **Error! Bookmark not defined.**.

6.2). Bourgault's No. 3 follows a similar destiny in Bruneau's hands. Bruneau presents the song in the first instance as a near copy, melodic and harmonic, of Bourgault's arrangement.

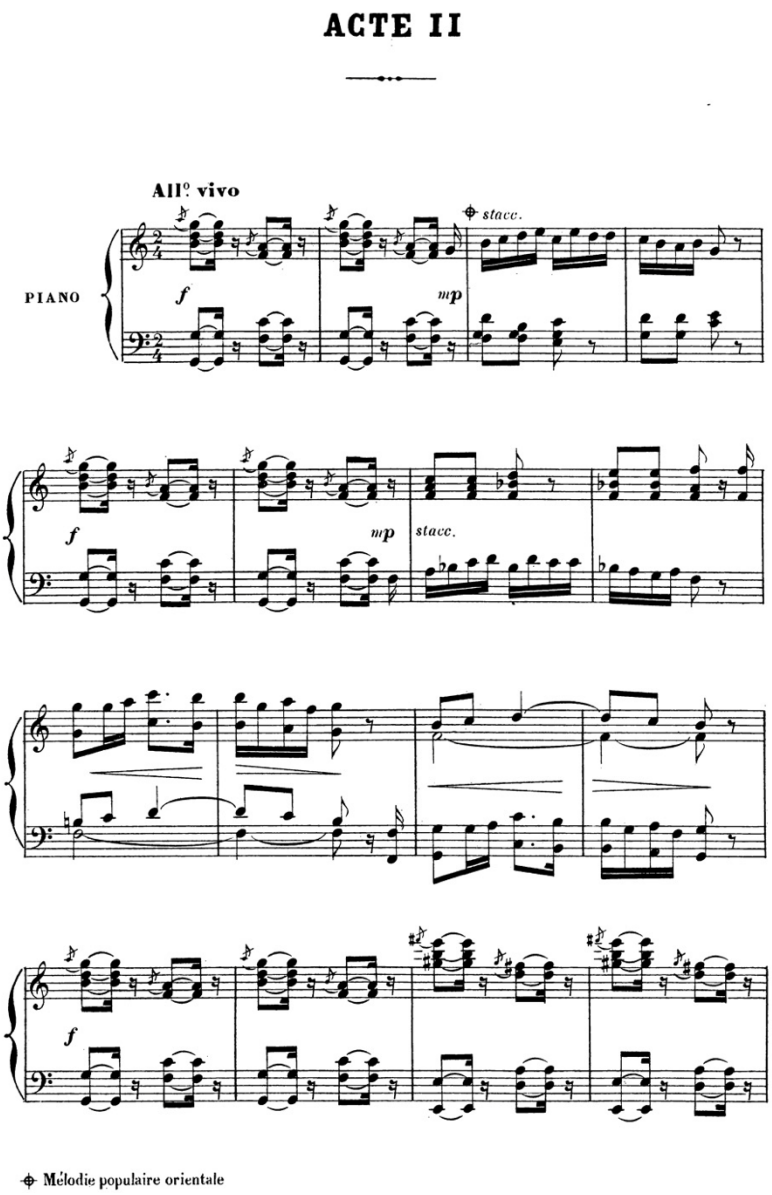


Figure 6.1: Opening of Act II of Bruneau's *Kérim* with its footnote label, based on Bourgault's Greek melody No. 4 (c.f. Fig. 5.1*a*).

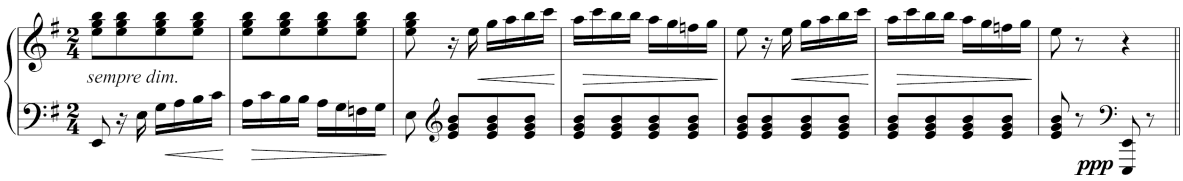


Figure 6.2: From Bruneau's *Kérim*, end of Act II, scene 1, transcription without vocals.

But over the course of the act, he manipulates the theme through a range of techniques – augmentation, diminution, transposition, and inversion – superposing and interposing it with fragments of No. 4. To my ears, the result is sometimes clever, often awkward.

One of the more successful moments is the climactic medley of rearranged Bourgault melodies in the act's final scene. No. 3 is inverted and transposed into a 'natural' minor mode: where the first phrase of the original melody settled on the third scale degree, now it tolls the tonic, punctuated with foreboding seventh chords; and where the original concluded on its tonic, now it climbs to the third scale degree, punching an ironic cadence in the relative major (Figs. 6.3*a–b*). If Bourgault's original melody began straightforwardly in the 'European major mode', Bruneau's simple inversion compensates by transposing the melody into a menacingly crooked and edgy variant. This is interwoven with fleeting fragments of No. 4, likewise modified, now transposed into another mode with an augmented second bifurcating its tetrachord – a top-shelf orientalist stereotype rebranded by Bourgault as the 'oriental chromatic'. Both themes are thus mutated into uncanny doppelgängers, a representational device befitting the exoticism of Bruneau's opera.

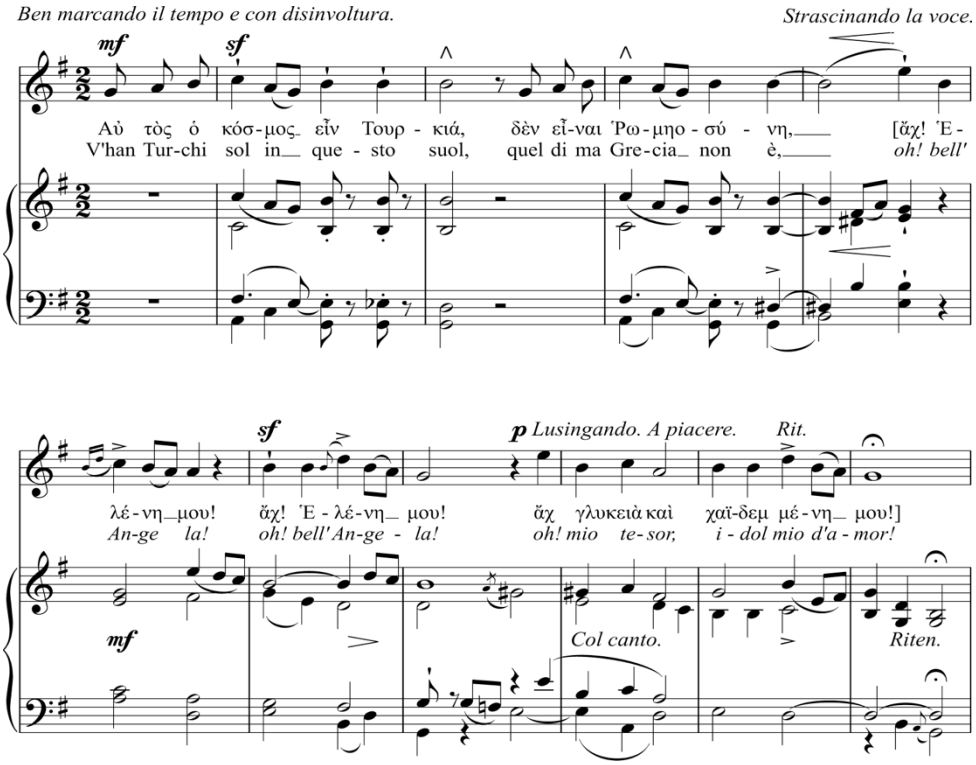
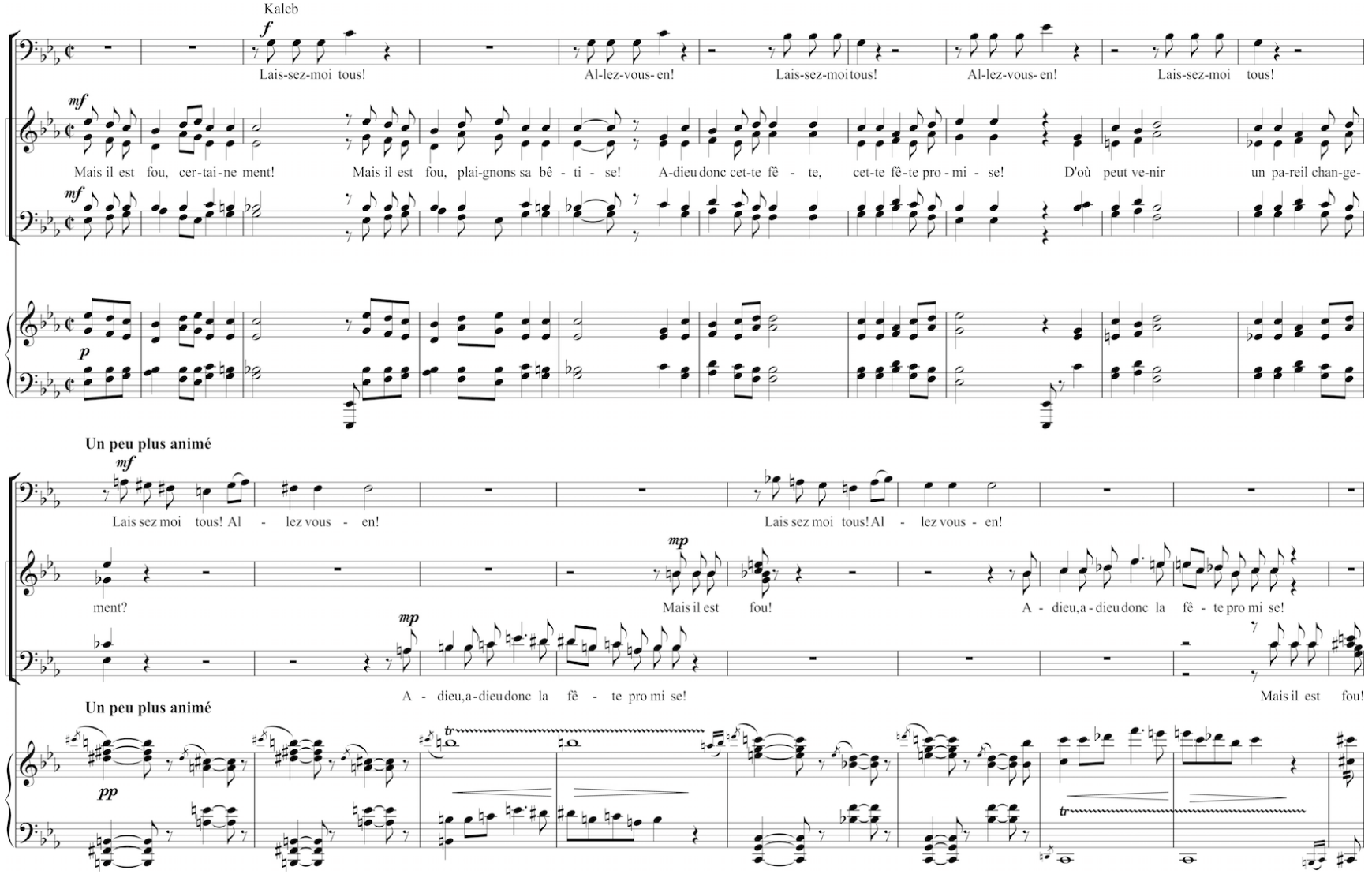


Figure 6.3*a*: Bourgault's melody No. 3, opening. The melody is in the major mode; Bourgault's accompaniment is gently chromatic.



Example 6.3*b*: Bruneau's superposition and modal transpositions of Bourgault's melodies Nos. 3 and 4 in *Kérim*, Act II.

Despite Bruneau's myriad manipulations, the prevailing critical reception of *Kérim* was that it was authentic – *too* authentic. For many, Bruneau's research and transformation of borrowed melodies resulted in an academicism which stood at odds with expectations for how an *opéra oriental* should sound. Camille Bellaigue (who would later have the opposite reaction to Bourgault's *Thamara*) exemplified this viewpoint in a condemnatory write-up in which he contrasted Bruneau's 'excess of research' with the impression it left behind: 'Even if we tell ourselves that it belongs to the hypolydian scale, we are unconsoled; and despite the authenticity of the melody, the sensation of the country is not awakened in us.'[18] Several critics noted that Bruneau had 'surrounded himself in documents', viewing such research as an impediment to artistic success.[19] Johannes Weber (who would later proclaim himself one of the most 'determined adversaries of [Bourgault's] sterile efforts' to appropriate ancient modality[20]) opined that the 'authentic' transcriptions in *Kérim* stuck out unpleasantly from the rest of the music. He remarked that 'Monsieur Bruneau might rather have invented Arab melodies himself; everybody today knows how to make oriental music, nothing could be easier.'[21] Even the opera's lone defender, Bruneau's friend Étienne Destranges, felt that 'Mr. Bruneau could have found a more characteristic theme' than this 'simple' melody (No. 3) which 'lacks local colour.'[22] Bruneau's 'performances' of authenticity remained convincing as recently as 2006, when one scholar, without noting Bruneau's source, cited *Kérim*'s 'radical approach to the harmonization of oriental melodies', breaking from the practice of Félicien David and Saint-Saëns and exemplifying a 'more profound engagement with native musical material'.[23] Perhaps this was an appropriate reception for a composer who went on to define the terms of musical 'realism' later in his career through his collaborations with Émile Zola. The apparent discrepancy between the overwhelming interest with which Bourgault's Greek collection was received, and the scepticism met with by Bruneau's opera despite containing much of the same music, might be attributable in various measures to questions of

[18] Bellaigue, *L'Année musicale* (1888), 246–7; 'On a beau se dire qu'il appartient à la gamme hypolydienne, cela ne console pas; et puis malgré l'authenticité de l'air, la sensation du pays n'est pas éveillée en nous.' In a similar vein: 'Nous ne nous sentons pas en Orient; la musique ne nous y emporte pas. Les mélodies orientales abondent cependant' (245).
[19] The same phrase is used by Théodore Massiac in *Gil Blas* (9/vi/1887), 2, and René-Benoist in *Le Costume au théâtre et à la ville* (15/vi/1887), 6.
[20] J. Weber, *Le Temps*, 4/i/1892, 3; 'Je suis un des adversaires les plus décidés de ses stériles efforts'.
[21] J. Weber, *Le Temps*, 13/vi/1887, 2; 'M. Bruneau aurait pu inventer lui-même des mélodies arabes; tout le monde aujourd'hui sait faire de la musique orientale, et rien n'est plus facile.'
[22] Destranges, *Kérim, le Requiem*, 17–18. 'Cette mélodie, d'une grande simplicité, manque un peu de couleur locale, étant écrite, très nettement, dans le mode majeur. M. Bruneau, semble-t-il, aurait pu trouver facilement un thème plus caractéristique.'
[23] Cooper, 'Nineteenth-Century Spectacle', 39 and 52.

genre and setting. If the travelogue and technical paratexts attached to Bourgault's collection of miniatures afforded and legitimated their experimentalism, perhaps these experiments did not comfortably scale up to the size of an operatic act. Or, perhaps Bruneau's overly 'academic' treatment of the borrowed melodies – with modal transpositions, inversions, augmentations, and diminutions – rankled those expecting other tropes or codes of orientalist representation of the Middle East.

Saint-Saëns, on the other hand, was highly sensitive to the question of academicism which dogged the reception of *Kérim*. His attitude, at least in 1885, appeared cynical: 'It is to appear erudite and refined that the public has got caught up in the ancient and the exotic.'[24] There is scarce evidence that Saint-Saëns made use of any transcribed materials prior to the 1890s.[25] As Henri Quittard later wrote, 'Saint-Saëns the orientalist' borrowed music 'not as a historian, nor as a folklorist in search of exact documents or obsessed with minute precision. He listened as an artist.'[26] This is not to suggest that Saint-Saëns was not privy to advances in musicological research and scholarship. He had supported Bourgault's theories ever since the lecture at the 1878 exposition, and amplified his teachings in an 1879 article for *La Nouvelle revue*, affirming that 'the ancient modes are returning to the stage, and, in their wake, oriental modes will surge into art in their immense variety. This all will offer new elements to dried-up melody, which will restart a new youth, far more fecund'.[27] Saint-Saëns even conducted and presented his own research on ancient musical instruments. However, he long resisted infusing compositions with meticulous research, his compositional approach owing more to 'the caprice of his impressions' (Romain Rolland's phrase) than to a creative enactment of scholarship.[28] If anything were to precipitate a change, it was the excavation of Delphi by the École française d'Athènes in 1893, led by Théophile Homolle. The findings included a song transcribed in ancient Greek notation, which would later be reconstructed by Théodore Reinach* and arranged with harmonies by Fauré; more broadly, the archaeological

[24] Saint-Saëns, *Harmonie et mélodie*, 309; 'c'est pour paraître érudit et raffiné que le gros public s'est mis à s'empêtrer dans l'antique et dans l'exotique.'
[25] Pasler, 'Saint-Saëns and the Ancient World'; Pasler examines works like *Orient et Occident*, the *Suite Algérienne*, and *Africa*. See also, in the same volume, her 'Saint-Saëns, "Algerian by adoption"', where she notes that Saint-Saëns scarcely ever commented on Algerian music, despite the lengths of time he spent there (174).
[26] Quittard, "L'orientalisme musical. Saint-Saëns orientaliste", 107.
[27] Saint-Saëns, 'Causerie musicale', *La Nouvelle Revue*, 1 (1879), 643; quoted in Gonnard, *La musique modale en France de Berlioz à Debussy*, 75; 'les modes antiques rentrent en scène et, à leur suite, feront irruption dans l'art les modes de l'Orient dont la variété est immense. Tout cela fournira de nouveaux éléments à la mélodie épuisée qui recommencera une nouvelle jeunesse, bien autre féconde…'
[28] Quoted in Huebner, *French Opera at the Fin-de-Siècle*, 195.

discoveries raised 'the stakes of classicism', according to Jann Pasler, and inspired a series of Greek-inspired works by Saint-Saëns.[29] When the Comédie française sought to stage *Antigone* that year, they commissioned Saint-Saëns to compose new incidental music to replace that of Mendelssohn, which had been used since the 1844 production at the Théâtre de l'Odéon.[30] The project put Saint-Saëns into a recognisable double-bind, forcing him to weigh the pressure to produce a certain degree of restorative 'authenticity' without 'exceeding the limits of austerity that the public could tolerate'.[31]

In his own preface to the vocal score of *Antigone* (reprinted in *Le Figaro*), Saint-Saëns detailed his methods for 'reproducing as much as possible the effect of ancient choirs'. Such techniques included a pared-back style, the use of modes, the calibration of rhythm and verse, and the orchestration with extensive use of flutes and harp.[32] I sense echoes of Bourgault in the style of this preface itself, in their shared ability to be simultaneously self-aggrandising and self-effacing: by weaving together so many techniques and sources, Saint-Saëns emphasises his own erudition, while appearing to cede creative control: 'in this union of poetry and music, the poetry has first place and the music can only be its auxiliary.' He cites specific borrowings from Gevaert and Bourgault;[33] and notes in particular that 'the Hymn to Éros imitates a Greek folksong collected in Athens by M. Bourgault-Ducoudray'.[34] Saint-Saëns would later call *Antigone* 'pure archaeology'.[35] On the basis of such claims to authenticity, Elinor Olin has proffered that Saint-Saëns was 'arguably the first composer to incorporate archaeological elements into [the] revitalization' of the music of antiquity.[36] And yet, while allowing certain stylistic novelties, especially in comparison with his previous

[29] Pasler, 'Saint-Saëns and the Ancient World', 250. For more on the Delphi dig and its echoes in music, see Solomon, 'The Reception of Ancient Greek Music', and Dorf, *Performing Antiquity*, 26–42. However, Jon Solomon has examined Saint-Saëns hellenistic works from the 1890s and has found no trace of the Delphic hymn in them (523–4).
[30] Solomon, 'The Reception of Ancient Greek Music in the Late Nineteenth Century', 499.
[31] Quoted in Brooks, '"Une culture classique supérieure"', 247; '...dépasser la limite d'austérité que le public est capable de supporter...'
[32] On the modes used in *Antigone*, see Brooks, '"Une culture classique supérieure"', and Olin, 'Reconstructing Greek Drama'.
[33] Saint-Saëns had sought Bourgault's expertise for information on the ancient Greek 'enharmonic' genus; Bourgault referred Saint-Saëns to Gevaert's volume, noting that the 'enharmonic mode' as conceived in Orthodox plainchant, and covered in his *Étude sur la musique ecclésiastique grecque*, is 'false' (F-DI, fonds Saint-Saëns, letter dated 15/ii/1893).
[34] Saint-Saëns, 'Préface', *Antigone*; 'L'hymne à Éros est imité d'une chanson populaire grecque rapportée d'Athènes par M. Bourgault-Ducoudray'; 'dans cette union de la poésie et de la musique, la poésie tient la première place et la musique ne saurait être ici que son auxiliaire.' The 'hymne à Éros' was also published separately as a *tiré à part*, but with no reference to Bourgault.
[35] Saint-Saëns, *Écrits sur la musique et les musiciens*, 542.
[36] Olin, 'Reconstructing Greek Drama', 58.

hellenistic work *Phryné*, Saint-Saëns's posturing in this instance masks certain countervailing factors. The most striking musical elements of *Antigone* have less to do with archaeology (or philology) per se, and more to do with evocative topics and stereotypes, such as the extensive unison choral singing and the instrumentation.[37] In this sense, Saint-Saëns combines allusions to convention with allusions to source materials in order to 'produce' a deft illusion of 'ancient music'.

Furthermore, while Saint-Saëns authenticates his 'Hymn' by appealing to Bourgault's authority, his adaptation of Bourgault's melody is strikingly liberal, and it takes careful inspection to spot its relation to Bourgault's No. 6: the connection, it transpires, has less to do with the 'melody' as collected, and more to do with Bourgault's polymodal analysis and arrangement of it. Saint-Saëns's melody hardly resembles Bourgault's, except in the broadest strokes; the form has been augmented by Saint-Saëns, the rhythm modified, and the contour ornamented, including an arpeggiated figure appended to the front end of each phrase. What Saint-Saëns did preserve was the highly idiosyncratic reading that Bourgault deduced from the melody and imposed in his own arrangement. According to Bourgault, the melody, forming a couplet, exhibited two modes in succession: a 'hypolydian' with E♭ as tonic ('despite', he insists, the phrases which end on C), and a 'phrygian' based on B♭, with F as its 'final'.[38] Concretely, this reading introduces a vacillation between modes, with an effect similar to the polymodality of Nos. 8 and 19. Saint-Saëns preserves this conceit wholesale, magnifying salient details of Bourgault's arrangement in the harp's rolling arpeggiations, and even extending the effect into the final bars (Figs. 6.4*a–c*). What Saint-Saëns 'imitates', therefore, is not the 'folksong collected in Athens' as such, but rather Bourgault's singular reading of it: he arranges Bourgault's arrangement. Bourgault, for his part, was gratified by Saint-Saëns's citation, and thrilled with the musical result: 'I'm at the Théâtre français,' he wrote to Saint-Saëns following the premiere, 'absolutely delighted. You are a marvellous magician.' And a post-script: 'How the public eats up those ancient harmonies!'[39]

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[37] Hugh Macdonald notes that the choruses never sing in harmony (*Saint-Saëns and the Stage*, 248).

[38] Bourgault-Ducoudray, *Trente mélodies populaires de Grèce et d'Orient*, 18; 'Dans la première partie du couplet… malgré la terminaison deux fois répétée de la phrase sur l'*ut*, *mi bémol* joue le rôle d'une tonique *hypolydienne*. Dans la seconde partie du couplet…*si bémol* joue le rôle d'une fondamentale *phrygienne*, et la finale *fa* le rôle d'une dominante.'

[39] Letter, n.d. [envelope dated 22/xi/1893], F-DI, fonds Saint-Saëns; 'Je suis au théâtre français, absolument ravi. Vous êtes un merveilleux magicien. ...Comme le public mord à ces harmonies antiques!' Bourgault also wrote of Saint-Saëns's work to Burnouf: 'les choeurs d'"Antigone" de St. Saëns avec qui je n'ai pas directement collaboré, mais qui a obtenu son principal succès en imitant la mélodie No. 6 de mon recueil! Il ne s'en est pas

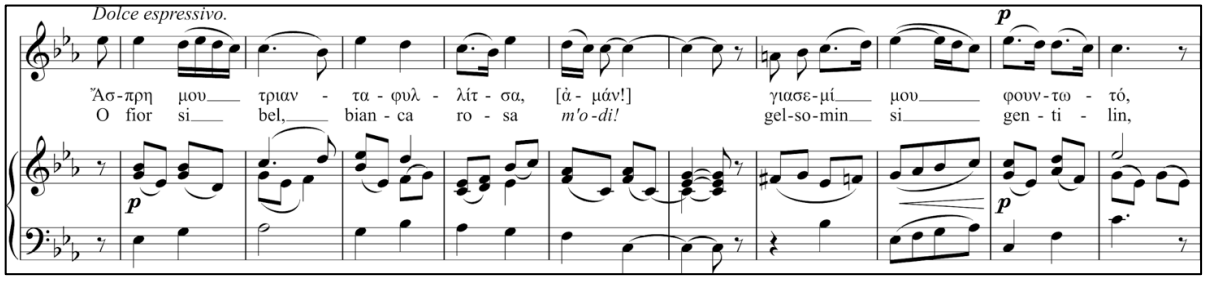

Figure 6.4*a*: Bourgault's Greek melody No. 6, first half of first couplet (bb. 8–17).

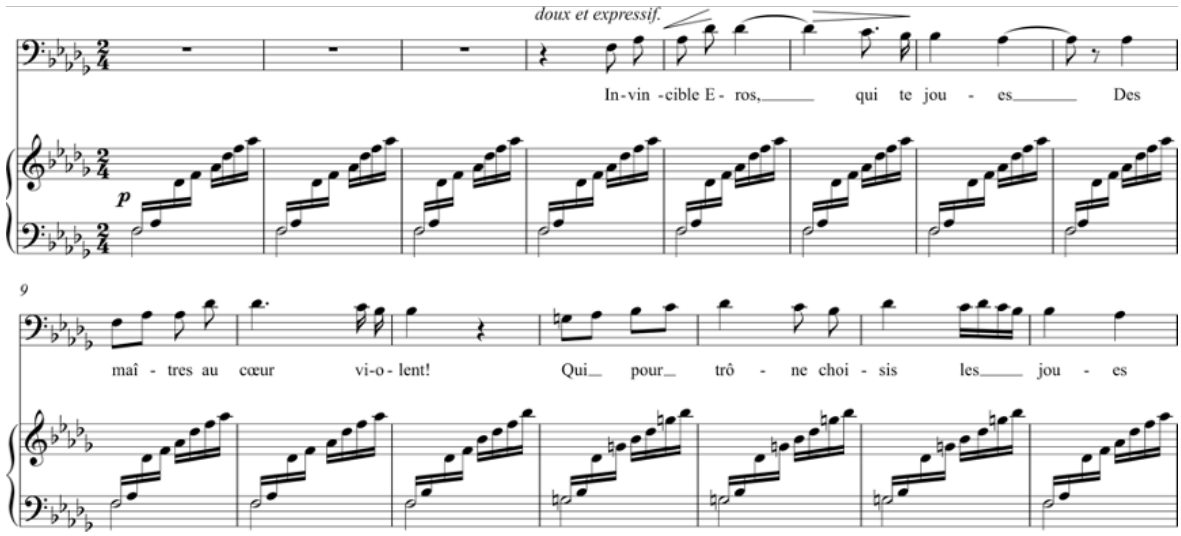

Figure 6.4*b*: Saint-Saëns's 'Hymne à Éros', 'imitating' Bourgault's arrangement (Fig. 6.4*a*).

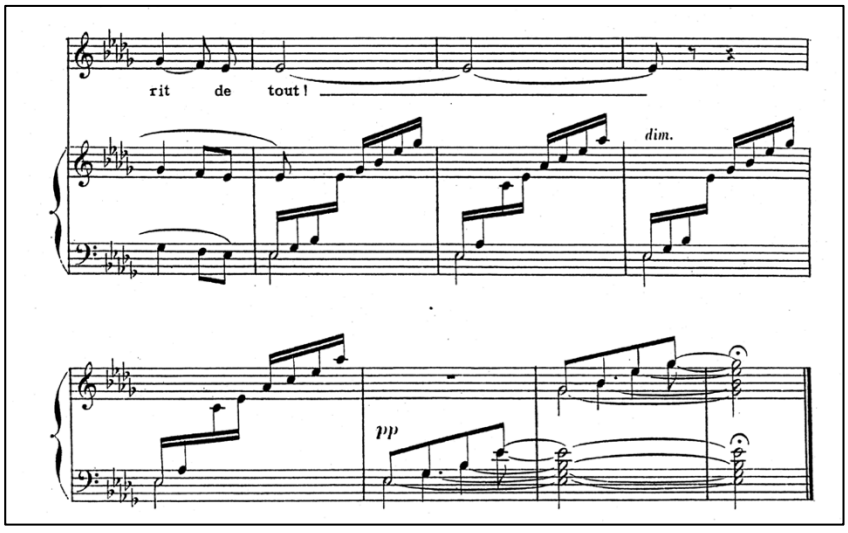

Figure 6.4*c*: Saint-Saëns's *Hymne à Éros*, published separately. The modal ambivalence of Bourgault's arrangement plays out in the closing bars of Saint-Saëns's rearrangement.

caché d'ailleurs et déclare m'avoir emprunté cette perle – dans la preface de la partition' (letter dated 7/iv/1894, F-NAbud, fonds Émile Burnouf).

Scales of nationalism: 'modes' between 'region' and 'race'.

Just as Bourgault had detached 'modality' from the bounded realm of song arrangement, assimilating it to his broader compositional lexicon, so too did Saint-Saëns continue to compose 'modally', independently of melodic quotation, but especially in the context of 'classical' or 'archaeological' works. Two important examples are his music for *Déjanire* (1898) and *Parysatis* (1902), each produced for an open-air amphitheatrical setting in Béziers where the pseudo-antique architectural emplacement seemed to yearn for a musical counterpart. Unlike *Antigone*, in neither work did Saint-Saëns appear to transcribe directly from an ostensibly 'authentic' source – if he did, he did not mark it paratextually.[40] Notwithstanding, Saint-Saëns deploys abundantly 'modal' lexicons in both *Déjanire* and *Parysatis*, echoing and extrapolating from the Bourgaultian sound-world of *Antigone*. We might query, therefore, the extent to which such 'modal' lexicons, valorised by Bourgault for their perceived identitarian quality, continued to be heard in contexts primed for nationalist, and Indo-Europeanist, thought. As 'modes' crossed the threshold from philology to composition, what residue of their philological, genealogical construction remained? The years between *Déjanire* and *Parysatis* were the same years during which Pierre Aubry was searching for essential 'Indo-European' modality in his lectures at the Institut catholique. Were the same nationalist associations of modality which were being proposed in Aubry's lecture theatre being heard by audiences in the musical theatre?

These three works of Saint-Saëns, because of the prominence of their 'modality' and the particularity of their performance histories, demonstrate mutually reinforcing constructions of archaeological rigour, modal soundworlds, and identitarian nationalism. Both the archaeological and the nationalist aspects of *Antigone* were enhanced, compared to the Paris premiere, in 1894, when it was produced at the 'Théâtre antique d'Orange' on a programme alongside Théodore Reinach's restoration of the Delphic hymn.[41] The Orange arena, a Roman relic from the time of Augustus (first century, C.E.), had been the object of recent renovation

[40] Both Christopher Moore ('Regionalist Frictions in the Bullring', 225) and Jann Pasler ('Saint-Saëns and the Ancient World', 252) suggest that Saint-Saëns used a transcribed melody in the Act IV prelude and nuptial procession, based on Émile Baumann's article, 'Camille Saint-Saëns et "Déjanire"' (*La Nouvelle Revue*, 1/viii/1900, pp. 432–46). However, I see no definitive evidence of this (quite the opposite) in Baumann's remark that 'un thème comme celui du cortège nuptial (au 4e acte) ne s'éloigne pas profondément des danses d'épithalame qu'on dansait au temps de Sophocle' (quoted in Moore, 225n75), nor elsewhere in Baumann's write-up, nor in Gevaert's or Bourgault's sources. Meanwhile, Hugh Macdonald suggests that Saint-Saëns attempted to incorporate Persian music into *Parysatis*, but was discouraged by Fétis's emphasis on Persian music's microtonality (*Saint-Saëns and the Stage*, 312, 315).

[41] Moore, 'Regionalist Frictions in the Bullring', 216.

and modernisation efforts, setting the scene for analogous revitalisations of classical dramatic arts.[42] Soon joined by its flashier, pseudo-antique competitor in the former Roman colony of Béziers, the two amphitheatres each negotiated a nexus of nationalist projections, Republican visions, and regionalist aspirations, as Christopher Moore and Katharine Ellis have shown.[43] However, these tensions might themselves be subsumed beneath a common sentiment of ethnic belonging that linked Occitan or Provençal regionalism to an identity 'beyond the *grand pays*'.[44] In the case of these *fin-de-siècle* amphitheatre performances, this broader identity has most often been characterised as 'latinité', glossed by Andrea Musk as the notion of French cultural inheritance from classical Greece and Rome, with a Mediterranean flavour in contradistinction to northerly Germanicism.[45] Prior to the first decade of the twentieth century, the dramatic programming at these venues was weighted toward the 'classical' antique, providing a setting which, as Ellis has written, 'added an extra dimension of Latin authenticity and rootedness that only the Midi, with its unparalleled density of such ancient sites, could provide'.[46] (The fact that *Antigone* was Greek rather than Roman did nothing to diminish the aura.) The connection between the terroir of the Midi and that of ancient Greece was asserted in Saint-Saëns's shorter song, 'Pallas-Athénée' with lyrics by Jean-Louis Croze: 'Les Provençaux, nouveaux Hellènes…'[47]

Latinité, particularly as an organised ideology under the auspices of Frédéric Mistral's Félibrige movement, does not alone imply investment in the broader Indo-Europeanist links that had been established through comparativism. As Ellis points out, French symbolic appropriations of Greco-Roman antiquity had been part of 'every regime from Louis XIV'[48] – although appropriating the 'classics' as a model is not the same as belief in 'racial' kinship. Even so, by this point, the 'Hellenic' and 'Italic' branches of the 'Indo-European' language family were increasingly viewed as having diverged from the 'Indo-Aryan' branch, which encompassed the Indian and Persian languages, at an earlier point in history – such that in some circles, the easternmost Indo-European languages were no longer conceived as 'ancestral' but rather 'fraternal' (even as many persisted in viewing India as the 'berceau'). I have not found evidence that Mistral or the other core Félibres were proactive in aligning their

[42] Ibid., 215.
[43] Ibid.; and Ellis, 'Open-Air Opera and Southern French Difference at the Turn of the Twentieth Century'.
[44] Ellis, *French Musical Life*, forthcoming.
[45] Musk, 'Regionalism, *Latinité* and the French Musical Tradition', 234–7.
[46] Ellis, 'Open-Air Opera and Southern French Difference at the Turn of the Twentieth Century', 182.
[47] Saint-Saëns, *Pallas-Athénée*, 11.
[48] Ellis, 'Open-Air Opera and Southern French Difference at the Turn of the Twentieth Century', 182.

movement with any broader Indo-Europeanism. Yet in the minds of some, latinité was indeed connected to a broader aryanist stratum. Paul Mariéton, Mistral's close associate and organiser of the concerts at Orange, on at least one occasion set out his vision for Orange to become 'an Eleusis of the aryans'.[49] Aryanist sentiment around Orange or Béziers was rarely expressed in explicit, self-standing terms, but could instead be suggested by an array of allusions and circumstances. For example, aryanist references peppered the *Revue félibréenne*, a journal of Occitan advocacy edited by Mariéton. Early on, the journal reprinted a speech by Emmanuel des Essarts, asserting:

> Mistral's superiority over most of our novelists and poets lies above all in his poems' adherence to the eternal, perpetual laws of poetry, in their harmony with the tradition of versed masterpieces, since the day when holy chant blossomed on the sacred banks of the Ganges. Mistral saw fit to be a poet, as all the melodious enchanters of humanity did before him, from Pindar to Virgil, from Virgil to Racine, from Racine to Victor Hugo. As one of the most recent to descend from these masters of the aryan race, he realised as they did the ideal, applied in his work as they did the triple formula of the True, the Good, and the Beautiful.[50]

Another (anonymous) author was pithier: 'Le Romain, c'est l'Aryen'. Recapitulating the familiar binary, the author continued: 'The Roman victory is the forward march of civilisation, the semitic victory would have been the cessation of all civilisation.'[51] Mariéton elsewhere quoted the advocacy of fellow Provançal nationalists on the grounds of its Indo-European lineage, and he aligned his own advocacy with that of Renan for Brittany.[52]

In the librettos of these open-air arena works themselves, we might also observe the recurring invocations of solar worship – the favourite trope of Indo-Europeanist comparative

[49] Mariéton was participating in a colloquy addressing the question, 'Que souhaiteriez-vous qu'Orange fut [sic]?' for the regionalist journal, *Le Feu*, 4 (1908), 306; 'Orange, lieu de concentration des complexes courants de l'esthétique méditerranéenne, pourrait devenir, par un rite solennel d'allégresse, une Eleusis des Aryens.'
[50] Emmanuel des Essarts, quoted by Jean Monné, in *La Revue félibréenne*, 1 (1885), 94; 'La supériorité de Mistral sur la plupart de nos romanciers et de nos poètes réside avant tout dans la conformité de ses poèmes avec les lois éternelles, perpétuelles de la poésie, dans leur accord avec la tradition des chefs-d'œuvre rythmés, depuis le jour où le chant divin prit son essor sur les rives sacrées du Gange. Mistral s'est contenté d'être poète, comme l'ont été avant lui tous les mélodieux enchanteurs de l'humanité, depuis Pindare jusqu'à Virgile, depuis Virgile, jusqu'à Racine, depuis Racine jusqu'à Victor Hugo. L'un des derniers venus de ces maîtres de race aryenne, il a réalisé comme eux l'idéal, comme eux appliqué dans son œuvre la triple formule du Vrai, du Bien et du Beau'. The triad at the end of this paragraph is an allusion to Victor Cousin's philosophy of eclecticism.
[51] 'S', in *La Revue félibréenne*, 8 (1892), 20; 'La victoire romaine c'est la marche en avant de la civilisation, la victoire sémite eût été l'arrêt de toute civilisation...'
[52] See Mariéton, *La terre provençale: journal de route*, e.g., 322.

mythologists[53] – not only in *Parysatis*, but also in the climactic hymns to the sun in André Gailhard's *La fille du soleil* (1909) and Séverac's *Héliogabale* (1910), two thoroughly modal works, the latter of which I revisit in Chapter 7. Could this be a red herring? The importance of the sun to the spectacles of Orange and Béziers is natural enough – the warmth and blue skies of *plein air* performances were perhaps their most important competitive advantage compared to Parisian theatres.[54] Yet solar reverence was bound up with nationalist provocation in Louis Gallet's piece, *Les fêtes d'Apollon*, performed before another reprise of *Antigone* at Orange in 1897, in front of a public including President Félix Faure:

> And I will especially make a large and important place
> not to those who in haze are bathed
> but to the children of the Sun, those of our race
> to our Gallo-Latin masters too frequently disdained!![55]

The resonances of this passage, which, according to Moore, was indeed heard as excessively nationalistic in context, may take on broader Indo-Europeanist associations given the similar language and solar worship of Gallet's 'Thamara' story. Over at Béziers, Moore cites the testimony of Jean Lorrain, Fauré's librettist for *Prométhée*, who in his memoirs described the spectators at the amphitheatre thus: 'During the day, they are blacksmiths, furniture makers, carpenters, coopers, vintners; in the evening they are warriors of Mitylene, or wild shepherds of the Caucuses.'[56] Given Lorrain's earlier retelling of dinner debates over theories of aryanist diffusion from the 'Plateau du Caucase', and given Lorrain's posthumous novella, *L'Aryenne* (1907), saturated with allusions to classical imagery (including the théâtre d'Orange), one might begin to piece together an aryanist spectre.[57]

If this still feels a bit nebulous, let us zoom in on the two works by Saint-Saëns with which I opened this section. *Déjanire* was received by Émile Baumann as evoking 'the anonymous

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[53] See above, Chapter 5, note 52.
[54] Ellis, 'Open-Air Opera and Southern French Difference at the Turn of the Twentieth Century', 184.
[55] Quoted in Moore, 'Regionalist Frictions in the Bullring', 218; '*Et surtout j'y ferai, large et haute place / Non point a ceux qui vont dans la brume baignés, / Mais aux fils du Soleil, à ceux de notre race, / A nos maîtres Gallo Latins trop dédaignés!!*' For more on Gallet's piece and the Théâtre d'Orange, see also Wardhaugh, 'Parisian Stars under a Provençal Sky'.
[56] Lorrain, *Poussières de Paris*, 347; quoted in Moore, 'Regionalist Frictions in the Bullring', 222–3; 'Dans la journée, ils sont forgerons, menuisiers, charpentiers, maîtres de chaix, tonneliers, vignerons; le soir, ils sont guerriers de Mitylène ou pâtres sauvages du Caucase.' The role-playing element of amphitheatre spectatorship has been identified by Katharine Ellis in her demonstration of how 'performers and audience became one' at the *Mireille* festivals from the turn of the twentieth century ('*Mireille*'s Homecoming?', 469n11, 500).
[57] See Lorrain, *Poussières de Paris*, 255–7; and *L'Aryenne*, 46. Lorrain described the plot of *L'Aryenne* as 'the antagonism of two society women belonging to two different races: the semitic and the aryan' ('l'antagonisme de deux femmes du monde appartenant à deux races différentes : la sémite et l'aryenne') (*Gil Blas*, 6/iv/1906, 3).

songs coming from the beginning of the race'.[58] In isolation, such a comment might seem innocuous and vague; but it rings more pointed in the context of Baumann's 1905 monograph devoted to Saint-Saëns, a book in which latinist and aryanist racial identity is projected back onto Saint-Saëns's entire biography: Baumann affirms, for example, that Saint-Saëns 'possessed, to a striking degree, the capacity to perceive differences which constitutes the finery of the Latin races'; he refers, strangely, to the 'Persian melodies' (why Persian?) of *Samson et Dalila*, *Phryné*, *Déjanire*, *Les Barbares*, and *Parysatis*; he suggests that Saint-Saëns sojourns on Algerian soil because it is 'Latin, classical, penetrated by the Bible', and allows him to feel 'at the heart of his origins'. Most striking, he proposes, in an excursus on the symphonic genre, that the symphony is most fully developed 'among those offshoots of the aryan trunk, the Germanic and Celtic, who long remained barbaric, preserving in their intuition the primordial unity of the world, formerly expressed in the poetry of India, those massive verbal symphonies.'[59] Baumann's reference to 'the beginning of the race' may thus be read as a specific reference informed by a broader context of Indo-Europeanist thought, channelled in the subject matter, and musical approach, of *Déjanire*.

In the case of *Parysatis*, the archaeological contexts were emphasised more than in *Déjanire*. Saint-Saëns's librettist was archaeologist and author Jane Dieulafoy; in collaborating with a veritable archaeologist, Saint-Saëns realised that the project would constitute, as he wrote to Dieulafoy, 'an orientalism more researched than anything ever done until now'.[60] The work's scientific basis pervaded the Béziers production, the finest details of set and costume designed according to Dieulafoy's research.[61] Archaeology is conveyed in the texture of the score, bearing a cuneiform inscription opposite the title page, and an explanation of the title's Greek and Persian etymology. And with its connections to Greece, the nationalist flavour is, again, hardly concealed. For one, while *Parysatis* is distinguished by its Persian perspective, the flavour of the drama and the music are essentially neo-Hellenic, in its modal saturation (including Bourgault's 'chromatique oriental') and stereotypical instrumentation. There is

[58] Quoted in Pasler, 'Saint-Saëns and the Ancient World', 252.
[59] Baumann, *Les grandes formes de la musique*, 52, 103, 248; 'il avait, à un degré surprenant, cette perception des différences qui constitue la finesse des races latines)'; 'Latin, classique, pénétré de la Bible, sur le sol algérien, il se sent au cœur de ses origines'; 'Parmi les rejetons de la souche aryenne, les Germains et les Celtes, demeurés longtemps tout barbares, durent conserver plus intacte l'intuition de l'unité primordiale du monde, jadis configurée dans les poèmes de l'Inde, ces massives symphonies verbales.'
[60] Quoted in Brooks, '"Une culture classique supérieure"', 255.
[61] My thanks to Heidi Brevik-Zender for initially drawing my attention to Jane Dieulafoy's archaeological work and role in *Parysatis* in her seminar paper, 'Architecture and Gender in Nineteenth-Century France' (Emmanuel College, Cambridge), 30/iv/2018.

explicit reference in the libretto to tropes of ancient Greek music, when a magus (a Zoroastrian priest) proclaims, 'May the battle-flutes and the gilded lyres sing, unison, in their noble accents'; there is plenty of sun-worship.[62] In its staged assimilation of Persianism and hellenism, *Parysatis* shares something in common with *Thamara*. Further corroboration comes from consulting *Parysatis* in its original form – Dieulafoy's novel. Take, for example, the scene toward the end of the opera, when a procession of 'princes, magi, and satraps' approaches King Artaxerxes. Describing an analogous march in the novel, Dieulafoy lists the processors: 'the magi, the white eunuchs, the black eunuchs, the governors, their spies and officers, the Immortals of the aryan race, the Susian guard'.[63] Allusions to the Persians' aryan identity surface again elsewhere in the text – such as when Darius, 'imbued with the superiority of the Persians', 'recounted myths of the aryans, the exploits of those tribes all across the territories'[64] – as well as in the scholarly publications of both Jane and her husband, archaeologist Marcel Dieulafoy, on Persian art, archaeology, and the Susa digs. The opening page of Marcel's history of *L'Art antique de la Perse* states the case most plainly: research on Iran, he writes, 'derives new value from the originary communities which unify the Latin races to the great aryan branch, and particularly from the ancient Persian nation, which, since the ninth century B.C.E., has not ceased to constitute a distinct political entity.'[65] The logic of staging *Parysatis* at Béziers may thus rest upon Indo-Europeanist comparativism; this construction, in turn, motivates Saint-Saëns's deployment of 'modality', and promulgates, however messily or indirectly, the association between constructions of 'Indo-Europeanism' and 'modality' in music – and crucially, the premise of its continuity in the French Midi (Fig. 6.5).

It would be reductive to suggest, on the basis of this sparse constellation of fleeting allusions, that Indo-Europeanism was the driving force behind the théâtres antiques, latinité, or the various actors and publics involved in these movements. Rather, it seems that nationalisms coexisted and overlapped on several concentric scales – from the grandest notions of an

[62] Saint-Saëns, *Parysatis*, 122–3; 'Que les flûtes de guerre et les lyres dorés / Chantent à l'unisson de leurs nobles accents'. For sun-god tropes, see e.g., 34, 146–7.
[63] Dieulafoy, *Parysatis*, 391; 'les mages, les eunuques blancs, les eunuques noirs, les gouverneurs, leurs espions et leurs officiers, les Immortels de race aryenne, la garde susienne.'
[64] Ibid., 121–2; 'Darius, imbu de la supériorité de la Perse...racontait les légendes des Aryens, les exploits des peuplades dont la horde traversait les territoires...'.
[65] Dieulafoy, *L'Art antique de la Perse*, I, i; '[Les recherches] qui se rapportent à l'Iran puisent une valeur nouvelle dans les communautés d'origine qui unissent les races latines au grand rameau aryen, et surtout dans l'antiquité de la nation persane, qui, depuis le IXe siècle avant notre ère, n'a cessé de constituer une unité politique distincte.'

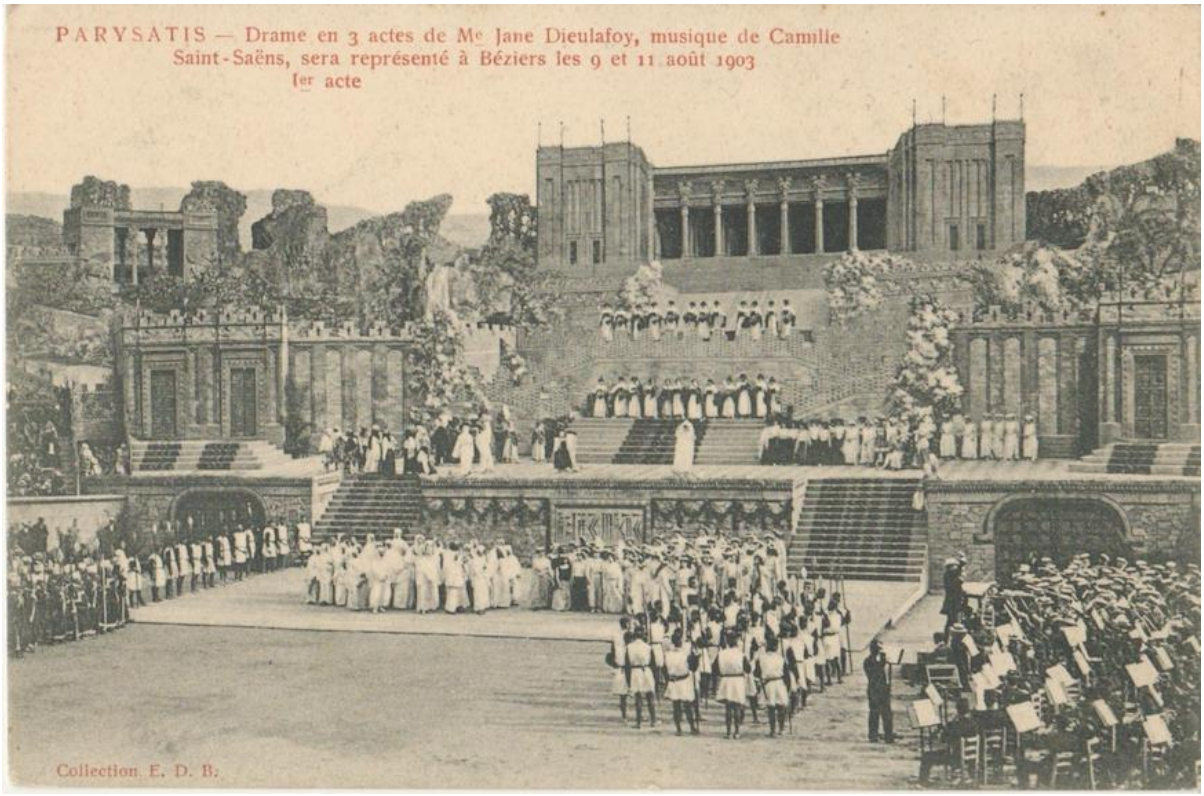

Figure 6.5: Still image from Act I of *Parysatis*, Théâtre des Arènes, Béziers, 1902.

'Indo-European race' down to patches of regional terroir. But musical 'modality' nevertheless resounded at each level of these telescoping nationalisms – whether as the 'ancient' modality of the classical cultures portrayed as 'ancestors', the 'Roman' chant modality associated with the musical articulation of early Christianity, or the 'folk' modality associated with the French regions. In the next chapter, I shall return to Béziers to examine how these multiple nationalisms collapse together in one further case study of this tradition, Séverac's *Héliogabale*, premiered there in 1910.

To an extent, what happened in the Midi stayed in the Midi (even if much of the audience was Parisian), and the chimera of staging classical sagas in vast amphitheatres proved difficult to translate back to the capital.[66] However, musical Indo-Europeanism infiltrated Parisian institutions alongside classicism, too – albeit with a very different flavour, providing a contrasting and instructive counter-current to what has been discussed above. For example, when Massenet collaborated with Catulle Mendès to compose the diptych of *Ariane* (1906)

[66] Ellis, 'Open-Air Opera and Southern French Difference at the Turn of the Twentieth Century', 190–2.

and *Bacchus* (1909) – the latter of which was adapted from an episode of the *Rāmāyaṇa*[67] – Massenet wrote of his developing interest in the world of ancient gods and demigods, and in particular in Hindu mythology, 'perhaps the least known'. He tied his interest to intellectual currents which had also stimulated Mendès, the Parnassians, and the Symbolists: 'The study of mythological fables, which had, until recently, been purely a matter of curiosity or at most of classical erudition, has now acquired the greatest importance, thanks to the research of modern scholars, who have found their role in the history of religions.'[68] Taking a sideswipe at Wagner, Massenet went on: 'The *Rāmāyaṇa*, for those who have read this sublime epic, is more intriguing and more immense than even the *Niebelungen*… It is no exaggeration to proclaim the *Rāmāyaṇa* as India's *Iliad* or *Odyssey*. It is divinely beautiful, like the immortal work of old Homer, which has traversed the centuries'.[69] Musically, the operas are characterised by a more eclectic approach than the quasi-archaeological scores of Saint-Saëns. Critics observed some debts to Wagner, but even more to Gluck and opera of the 'grand siècle', suggesting an assimilation of classicisms in a manner that would become increasingly prevalent in decades to come. The absence of 'morose archaeological documentation' in *Ariane* was praised by Willy.[70] Modality was limited, reserved for special effect alongside the stereotypically evocative harp and percussion.[71] In Act II of *Bacchus*, set in Nepal, Massenet took the quasi-archaeological measure of citing, with paratextual label, a 'Greek melody based on an ancient text' to serve as a 'chant sacré' for Bacchus's priests, accompanied by simple tremolos and arpeggios.[72] However, this citation is exceptional and fleeting, and seems to have caused barely a blip in the work's reception (perhaps it was outshone by the innovative use of film during the scene of Ariane and Bacchus's arrival in India).[73] As Jean-Christophe Branger emphasises, 'Massenet does not strive for authenticity, but rather engages in a process of searching for local colour, in which, especially in *Bacchus*, exoticism, religion,

[67] Irvine, *Massenet*, 275.
[68] Massenet, *Mes souvenirs*, 260; 'L'étude des fables mythologiques, qui n'avait, jusqu'à ces derniers temps, qu'un intérêt de pure curiosité, tout au plus d'érudition classique, a acquis une plus haute importance, grâce aux travaux des savants modernes, lui faisant trouver sa place dans l'histoire des religions.'
[69] Ibid., 260–1; 'Le poème sanscrit, à la fois religieux et épique, de Palmiki, *Râmayana*, pour ceux qui ont lu cette sublime épopée, est plus curieux et plus immense même que les *Niebelungen*... En proclamant *Râmayana* l'Illiade [sic] ou l'Odyssée de l'Inde, on n'a rien exagéré. C'est divinement beau, comme l'œuvre immortelle du vieil Homère, qui a traversé les siècles.'
[70] Branger, '*Ariane* et *Bacchus* de Massenet', 210–15; 'maussades documentations archéologiques'.
[71] Ibid., 200.
[72] Massenet, *Bacchus*, 76; 'Mélodie Grecque d'après un texte antique'. According to Jean-Christophe Branger, Massenet's melody can be found in Fétis, *Histoire générale*, III, 242, ('*Ariane* et *Bacchus* de Massenet', 207).
[73] Giroud, 'Le désastre de *Bacchus*', 174.

and antiquity are intermixed.'[74] Ultimately, *Ariane* and *Bacchus* were unsuccessful, and the latter, withdrawn after six performances, was an utter humiliation for the composer.[75] While it is difficult to attribute the failure to any one cause, it appears that the abstruse libretto did not help matters, and whatever Indo-Europeanist intellectualising Massenet put into the project did not make a major impact.[76]

The case was different for another, contemporaneous, 'Ariane' – *Ariane et Barbe-Bleue* (1907) by Paul Dukas* – based not on the classical figure, but on the tale of Bluebeard as retold by Maurice Maeterlinck. A richly intertextual opera, Dukas quotes a theme from Debussy's *Pelléas et Mélisande* (enthusiastically labelled in the score), and emulates a passage from the second Symphony of Vincent d'Indy* (which d'Indy had dedicated to Dukas in 1903) at the climactic end of the first act, when the voices of Bluebeard's wives sing 'Les cinq filles d'Orlamonde' from the cavernous seventh door.[77] On the basis of its plot, this opera may appear an unlikely site for notions of Indo-Europeanism; and yet, as Anya Suschitzky has demonstrated, whether or not Dukas contemplated Indo-Europeanism when composing *Ariane et Barbe-Bleue*, notions of aryanism became projected onto the work in its reception. One instigator here was Édouard Dujardin, the critic, author, and friend of Dukas, who had founded the short-lived *Revue Wagnérienne* in 1885. In his rapturous review for *Le Mercure de France*, Dujardin compared Dukas's opera to the lesser *Ariane* 'la petite, Massenet's child': while Massenet sought success by appealing to the lowest common denominator, and while others find success by appealing to elitism, *Ariane et Barbe-Blue*, Dujardin argued, 'in the pure, Greek beauty of its name, passes right over the heads of the snobs'.[78] The music, Dujardin asserted, supported by the 'most intense orchestra heard since Wagner', proposed a 'return to the pure classical tradition.'[79] What, according to Dujardin, was the source of Dukas's artistic triumph? He cited the 'subterranean song of the girls of

[74] Branger, '*Ariane* et *Bacchus* de Massenet', 206; 'Massenet ne fait pas œuvre d'authenticité mais s'inscrit plutôt dans un processus d'une recherche de couleur locale où se confondent, surtout dans *Bacchus*, exotisme, religion et Antiquité.'
[75] Irvine, *Massenet*, 275. Giroud puts the number of performances at five ('Le désastre de *Bacchus*', 179).
[76] On the reception of *Bacchus*, see Giroud, 'Le désastre de *Bacchus*'.
[77] Pauline Ritaine has found that the folklike theme from d'Indy's symphony may itself have been borrowed from Dukas, who had been working on an adaptation of a plainchant melody, which became the theme of the Cinq Filles d'Orlamonde, as early as 1899 ('Paul Dukas et l'opéra', 350–3). If correct, this further illustrates the perceived continuities between chant and folk 'modality' at the *fin-de-siècle* (and could also explain d'Indy's dedication to Dukas).
[78] Dujardin, 'Le Mouvement symboliste et la musique', 20; '*Ariane*, dans la pure beauté grecque de son nom, passe au-dessus des snobs'.
[79] Ibid., 16; 'Le chant souterrain des filles d'Orlamonde'; '[l'orchestre] le plus intense qui ait été entendu après Wagner'; 'le retour à la pure tradition classique'.

Orlamonde', with its prominent modality, as indicative of the work's classical essence. Dujardin offered the following explanation, starting with an allusion to Dukas's Jewish background: 'This man, whose ancestors seem to have been exotic, has thus assimilated all the qualities of our race; freed of foreign influences, he seems eminently French and represents the purest example of our civilisation; in him now blossoms the tradition which today we call aryan, which was most likely born in Greece, passed through Italy, and has continued in France.'[80] '*Ariane*, so aryan', he punned. Dujardin, while perhaps the most explicit, was not the only one to view Dukas, or his opera, in this way, as Suschitzky shows. Many critics, colleagues, and friends of Dukas, including d'Indy and Robert Brussel, perpetuated a narrative according to which Dukas 'deliberately assimilated' himself to an ideal of Frenchness.[81]

Conclusion.

Whether Dukas, himself, conscientiously modulated his identity, personally or musically, in response to ethnic nationalism around him, is likely unknowable – although he could hardly have been oblivious to the antisemitism of those in his circle, particularly during the composition of *Ariane*, much of which took place over the course of the Dreyfus Affair. Circumstantially, it might be relevant to note Dukas's avid interest in Hindu literature – leading to plans in 1899 to adapt an Indian legend into a projected (ultimately abandoned) work titled *L'Arbre de science*. One might read, too, further into his ballet, *La Péri* (1912), which dramatises the Persian quest of Iskender (Alexander the Great) for immortality and includes his encounter with a 'Peri', a figure from ancient Armenian and Persian mythology, at the threshold of a Zoroastrian temple.[82] However suggestive these contexts are of an interest in Indo-Europeanism more broadly, to deduce any conclusions about the meaning Dukas sought to embed into *Ariane* on the basis of these details seems no more reasonable than the assumptions of motive ascribed to Dukas by Dujardin or d'Indy. What we can see, however, is that in the reception of *Ariane et Barbe-Bleue*, evocations of 'folk modality' were

[80] Ibid., 19; also quoted in Suschitzky, '*Ariane et Barbe-Bleue*', 148–9; 'Cet homme, dont les hérédités anciennes semblent avoir été exotiques, s'est assimilé ainsi toutes les qualités de notre race; dégagé d'influences étrangères, il apparaît éminemment français et représente le type le plus pur de notre civilisation en lui s'épanouit cette tradition qu'on appelle aujourd'hui aryenne, qui est sans doute née en Grèce, qui a passé par l'Italie et s'est continuée en France…'

[81] Suschitzky, '*Ariane et Barbe-Bleue*', 148–50.

[82] On the possible inspirations for *La Péri*, as well as for evidence of Dukas's library full of religious and orientalist literature, see Minors, '*La Péri*, Poème Dansé (1911–12)', 231.

bound up with aesthetic ideas of classicism independently of the narrative content of the opera, and that this nexus contributed to the critical evaluation of Dukas as 'French' – and even, 'aryan'.

The expansion of modal compositional techniques toward the turn of the twentieth century was something for which, at least in private, Bourgault-Ducoudray was pleased to assume responsibility. He even shared credit with Burnouf in a 1894 letter: 'The Greek modes have made their way, and we're creating a school'.[83] In 1898, he applauded Saint-Saëns once more, this time on the latter's extrapolation of modality for *Déjanire*, of which Saint-Saëns had sent Bourgault a signed copy of the score: 'Of all the composers, you are certainly the one who has got the closest to the 'ancient' sound. Impossible to create a better blend, in a harmonious language, of what we know about the character of the music of the ancients and modern necessities.'[84] If Bourgault's efforts were instrumental to the innovation of modality as a compositional technique, then it need not surprise us that his ethnic nationalist rhetoric should also, to some degree, have remained attached to modality's significance and the meanings ascribed to it in contexts of composition and reception. As musical modality became more widespread, however, it also shed some of the meanings that coloured and legitimated its early usage – to return to Born and Hesmondhalgh's words, modal techniques became 'naturalized and aestheticized' over time.[85] By 1925, Koechlin, drawing up a list of trends in contemporary French music for his long article in Lavignac's *Encyclopédie*, included a discussion of 'modes grecs' in which he noted that today's composers 'express themselves naturally in these scales, without the slightest notion of archaism'.[86] It is this process of 'abstraction' which I shall examine in further detail in the next chapter – through the case of Indian, rather than Greek, modes, as they were implemented in and integrated into French composition during the early decades of the twentieth century.

[83] Letter dated 7/iv/1894, F-NAbud, fonds Émile Burnouf; 'Les modes grecs, ont fait leur chemin, et nous faisons école.'
[84] Letter dated 20/ix/1898, F-DI, fonds Saint-Saëns; 'De tous les compositeurs, vous êtes certainement celui qui s'est le plus rapproché de la note 'antique'. Impossible de mieux fondre dans une langue harmonieuse, ce que nous avons du caractère de la musique des anciens, avec les exigences modernes.'
[85] Born and Hesmondhalgh, 'Introduction', 45.
[86] Koechlin, 'Les tendances de la musique moderne française', 93; '...les musiciens d'aujourd'hui s'expriment en ces gammes, naturellement et sans le moindre parti pris d'archaïsme...'.

CHAPTER 7

INDIAN MODES: ASSIMILATION AND ABSTRACTION

When Bourgault-Ducoudray wrote to Burnouf in 1894 to declare that the Greek modes were making their mark, he also referred to another new work: 'Gabriel Pierné,' he wrote, 'has made a most remarkable use of ancient modes in his music for Izéïl.'[1] Bourgault was referring to the play *Izéÿl*, a four-act 'drame indien' written by Armand Silvestre and Eugène Morand for Sarah Bernhardt, staged at her Théâtre de la Renaissance to great popular success.[2] In particular, Bourgault was impressed by Pierné's use of three ostensibly ancient Indian modes for various musical numbers. While Bourgault made no mention of Indian music in his published musicological work, French musical representations of India are logical sites in which to seek resonances of his notion of Indo-European 'modality', and its reverberations in French music – and his reaction to *Izéÿl* suggests that he condoned the logical extrapolation.[3] Moreover, unlike the sprawling case of hellenism, which inspired innumerable works throughout French music history (extending well before the prevalence of the Indo-European hypothesis), Indian representations form a comparatively manageable corpus more intimately linked to Indo-Europeanist intellectual contexts, allowing for a more focused survey and analysis.

Musically inclined philologists from Jones to Grosset paid special attention to Indian music in view of the perception that it contained traces of ancient 'Indo-European' or 'aryan' culture, as discussed in Part I. While the early theorists had viewed India as the oldest, originary source of the 'Indo-Europeans', by the late nineteenth century, the intellectual consensus had

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[1] Letter dated 7/iv/1894, F-NAbud, fonds Émile Burnouf; 'Gabriel Pierné a fait un emploi des plus remarquables des modes antiques dans sa musique d'Izéïl [sic]'.

[2] For details of *Izéÿl*'s plot, as well as its internationally popular reception, see Samuel Thévoz, 'The Yogi, the Prince, and the Courtesan'.

[3] Louis Gallet, having collaborated with Bourgault on *Bretagne* and *Thamara*, published an open invitation for Bourgault to compose a 'Hindu' work: 'Je signalerais volontiers à M. Bourgault-Ducoudray, puisqu'il affectionne les thèmes de ce genre, la belle scène de la naissance du Gange dans le Ramayana. Il s'en pourrait inspirer pour une nouvelle composition instrumentale' (*La Nouvelle revue*, 1/ii/1890). Near the completion of this thesis, I found that Bourgault did in fact engage with Indian music once, in 1909, in the course of his involvement at the Université des Annales, he collaborated with Jules Bois and dancers Régina Badet and Madame Mariquita on a 'Danse du lotus', 'danse hindoue, musique inédite, d'après une mélodie populaire reconstituée par M. Bourgault-Ducoudray'. Bois noted that Bourgault 'a récrit, conformément aux anciens rythmes hindous, la musique de ces danses' – an especially intriguing remark in light of the importance of 'rythmes hindous' in Chapter 8, below. I have not found Bourgault's sources for these musical reconstructions. See *Les Annales conferencia: journal de l'Université des annales* 3 (1909), 574–8.

shifted: scholars increasingly believed that the Indo-European fount sat somewhere in Central Asia, and that the branches of the Indo-European family split along multiple vectors: one 'developing' eastward via Persia toward India, another westward via Greece and Rome toward Europe. Nevertheless, notions of India-as-Eden persisted in the public imagination – further bolstered by certain comparativists like Emmanuel Cosquin who perpetuated the Indian origins of Europe's mythology, and whose work reached broader audiences than increasingly sophisticated linguistic studies. In musicological contexts, the tenacious impression of India as 'cradle of the world' persevered in volumes such as the *Histoire de la musique* (1909) by Henry Woollett*.[4]

India – variously conceived as remote ancestor, distant cousin, or 'exotic' stranger – thus clouded binaries of 'self' and 'other'. Such ambivalence is reflected in Victor Segalen's 1906 response to Debussy's epistolary enquiry about 'Hindu music': Segalen proposed that ancient Vedic music might be of the most interest to the composer, 'not too strange to our thinkers, because Aryan, not too familiar because distant in space and time…'.[5] Indian music, as conceived by French musicologists, was multiply articulated – as a musical 'past' by those desiring to recover the 'pure' roots of a musical culture presumed ancestral to 'European' music; and as an 'other', by those who had heard it and perceived that Indian music, in practice, was something foreign. Yet the philologically mediated representation of Indian music, via extensive tables of modes and rhythms based on antique written sources, appeared, to certain French musicologists, suggestive of kinship, or at least a degree of musical assimilability, to ancient Greek music, and thereby modern European music: tables of Indian modes produced a resemblance to those of Greek modes, and sometimes Indian modes even overlapped in intervallic content with Greek 'counterparts'.[6] Such tables provided composers with a potentially ample palette for experimentation – and abundant sources with which to perform philological authenticity.

Well before 1894, Pierné, and *Izéÿl*, there had been representations of India, and Indian music, by French composers – to say nothing of literary representations, as documented by Raymond

[4] Woollett's *Histoire* is discussed in Chapter 2.
[5] Quoted in Pasler, 'India and Its Music in the French Imagination before 1913', 38.
[6] It is revealing in this sense that Indian modes were consistently referred to as 'modes hindous' – as if to associate the particular subset of Indian peoples (i.e., those who were not Muslim) who practiced such modes with the same term as the religion and mythological corpus (Hinduism) whose roots were believed linked to those of Greece and Rome as well as to the Indo-European folklore supposedly found throughout Europe.

Schwab, Jean Biès, and Claudine Le Blanc.[7] The case of Kālidāsa's *Abhijñānaśakuntalam* (*The Recognition of Śakuntalā*, ca. 4th century CE) is emblematic. Among the most widely disseminated Indian literature in Europe, *Śakuntalā*, as first translated by William Jones (1789), was rapidly embraced as the closest available link to 'humanity's original language'.[8] In its direct translation from Sanskrit to French by Antoine-Léonard Chézy in 1830, it was enthusiastically received in French literary circles, notably by Théophile Gautier and Alphonse de Lamartine. Gautier, collaborating in turn with Ernest Reyer, adapted the play into a libretto for their ballet-pantomime, *Sacountalâ* (1858) – the form in which, according to Dorothy Figueira, Kālidāsa's work became known to a broader Parisian public.[9] Before the close of the century, *Śakuntalā* was taken up again by Georges Hüe (*envoi de Rome*, 1883) and Pierre de Bréville (1896).

Indian music 'in the French imagination' has been explored by Jann Pasler, most completely in a 1996 article which lays important foundations for my research here.[10] In that article, Pasler traced some musicological and musical representations of Indian music in France up until 1913, with due attention to the complexities of India's imbrication in racial discourses as exemplified in texts by Fétis, Grosset, and Woollett.[11] Here, I build upon Pasler's work, but with particular attention to how composers invoking Indian music continued to build upon philological research and constructions of Indo-European filiation, in order to 'perform' authenticity and legitimate modal composition. I am primarily interested in the development of two dimensions of these appropriations: first, musically, what I call their assimilation and abstraction – that is, the extrapolation of Indian 'modes' from studies of Indian music, mostly mediated by philological study, and the gradual integration of these modes into the compositional lexicons of French composers; and second, the ongoing theme of how paratextual speech-acts – performative 'authentications' – enable these processes. I begin, however, not with modes but with melodies: in the late nineteenth century, quotations of Indian 'melodies' were frequently imported, like archaeological objects, into Indianist stage works for the sake of 'local colour'. Conversely, the overarching trend toward 'modes', which

[7] Schwab, *La Renaissance orientale*; Biès, *Littérature française et pensée hindoue*; Le Blanc, *Les Livres de l'Inde*.
[8] Ahmed, *Archaeology of Babel*, 43.
[9] Figueira, *Translating the Orient*, 183.
[10] Pasler, 'India and Its Music in the French Imagination before 1913'; see also, 'Race, Orientalism, and Distinction in the Wake of the "Yellow Peril"'.
[11] Pasler's upper limit of 1913 accommodates Roussel's *Évocations* and Delage's trip to India in 1912. However, her discussion of Grosset is limited to his 'Contribution' of 1888, and she does not note that 1913 was the year his article appeared in Lavignac's encyclopedia.

blossomed only later, reflected an increasing focus, mediated by philology, on honing structural principles rather than importing quotations – an approach which had already been modelled with respect to plainchant, Greek, and 'folk' modality, as we have seen, and which was concomitant with philologists' construction of India as 'Indo-European past'. As I extend beyond Pasler's cut-off date of 1913, the assimilation of Indian modes to principles of Greek modes, and their systematisation by figures like Maurice Emmanuel and Marcel Dupré, led to a process of rationalised 'abstraction', allowing the modes to circulate as musicological data or raw musical material, detached from dramatic justification. In this sense, my trajectory takes a rather different course from Pasler's. She concludes with the compositions of Maurice Delage, whose live encounters with Indian music, in India, led to an approach rich in timbral and sonic experimentation in works like his *Quatre poèmes hindous* (1912) and *Ragamalika* (1914), which Pasler argues 'subvert[ed] traditional Western music practices'.[12] While her teleology inclines toward an increasing ultramodern valorisation of musical 'difference' and 'otherness' which remained marked as such in Delage's compositions, I offer a parallel but contrasting narrative, in which Indian music is valorised via notions of musical 'similarity' and 'selfhood', no longer to be marked as 'Indian' but rather as 'French' – and thus eventually unmarked altogether.

Melodic 'archaeology'.

For context, let us begin by examining a piece which encapsulates the range of associations that India might have held in the compositional and public imagination toward the earliest extremity of this study: *L'Inde* (1865) by Jean-Baptiste Weckerlin*, subtitled '*Ode-Symphonie*', aligning itself unambiguously with Félicien David's popular 'ode-symphonie' to Egypt, *Le Désert* (1844).[13] Unlike David, who travelled to Egypt in the 1830s, Weckerlin did not voyage to India, and instead relied on a broad spread of published source materials – poetic, linguistic, historical, colonial – to assemble a heterogeneous series of vignettes, threaded together by a love story. The work comprises fourteen movements plus an introduction; it features collected texts evoking India from a pantheon of poets including Méry, Lottin de Laval, Hugo, Leconte de Lisle, and Dovalle, plus a smattering of texts in Sanskrit, Prakrit, and a certain 'dialecte créole' (Fig. 7.1). With its labelled quotations of texts

[12] Pasler, 'Race, Orientalism, and Distinction in the Wake of the "Yellow Peril"', 103.
[13] Weckerlin's work is missing from Pasler's study. Weckerlin would become David's successor as librarian at the Conservatoire in 1876.

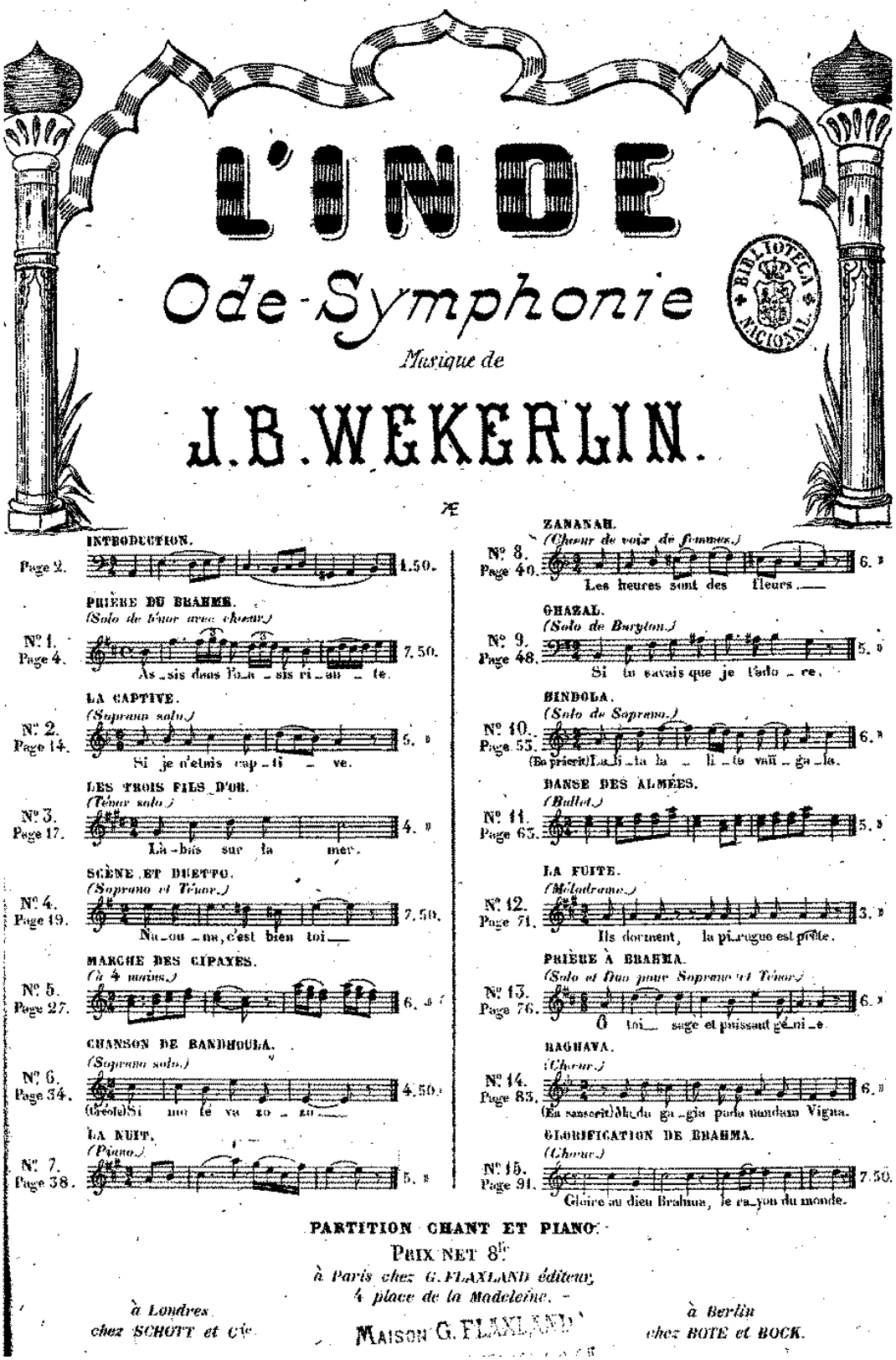

Figure 7.1: The eclectic list of musical numbers in Weckerlin's *L'Inde*, including the 'Hindola' with its label 'En prâcrit'.

and melodies, *L'Inde* illustrates how authenticity can be 'performed' even in conjunction with what seems like absurd fantasy. On one hand, the score features evidence of Weckerlin's research: the 'Hindola', for example, features Prakrit text from William Jones's transcription of an Indian melody (save a few discrepancies of transcription), and loosely fits the pentatonic character of the mode 'Hindola', as given by Jones;[14] the subtitle of the song, 'Song of the Swing', suggests he might have cross-referenced this against Garcin de Tassy's *Chants populaires de l'Inde*, which contains a song titled, 'Hindola, chant de l'escarpolette'.[15] Weckerlin's explanations in brackets or footnotes of words like 'Bandhoula', 'Zananah', or 'Ghazal' project authority and authenticity.[16] On the other hand, one of these footnotes explains that the melody of the movement 'Raghava' was 'notated according to the Ioways Indians who came to Paris in 1845'[17] – referring to fourteen Iowa people brought to Paris that year under the auspices of George Catlin's 'American Indian Gallery'.[18] Yet Weckerlin's conflation of Indian 'Hindoux [sic]' and Iowa 'Indiens' does not undermine the illocutionary force of his footnote. While *L'Inde* portrays a heterotopian India encompassing a plethora of tropes which may have been recognisable to mid-nineteenth-century publics – Hindu 'ritual', 'caste' social organisation, British colonialism – there is yet no evidence of any concerted or nationalist Indo-Europeanism, of the sort that Fétis was beginning to tout during these years; Weckerlin's Indias are all 'other'.[19]

[14] The transcription from William Jones is the same as that retranscribed by Fétis and discussed in Chapter 1.
[15] Garcin de Tassy, *Chants populaires de l'Inde*, 47.
[16] It seems that many of these footnotes and explanations were added between the fair copy manuscript (dated 1865) and publication of the piano-vocal score (1872); see F-Pn, Ms. 7121.
[17] Weckerlin, *L'Inde*, 83; 'Le premier thème de ce chant de guerre a été noté d'après les Indiens IOWAYS venus à Paris en 1845.'
[18] The conflation between South Asians and indigenous Americans both subsumed under the term 'Indiens' (evidently persisting since Columbus) was also made in one of Weckerlin's poetic sources, Charles Dovalle's *Le Sylphe*, in which references to 'Brama' are found next to 'Ontario' and 'Niagara'.
[19] Weckerlin would return to India as a musical theme over the subsequent decades. In 1874, he composed 'Râgas de l'Inde' (sometimes titled 'Râgas indiens'), a suite for piano four-hands, which he later augmented and orchestrated in 1889, but which remains unpublished in any form (F-Pn, Mss. 14182 & 16929); in 1896, he published *Souvenirs de l'Inde*, another four-hands suite, unrelated to 'Râgas', and containing a 'danse du scalp' channelling stereotypes of indigenous Americans and perpetuating this longstanding conflation. At some point after 1890, Weckerlin (with the help of one Beatrice Reid) attempted to study Indian music in greater depth by translating the *Catechism of Hindu Music* by Mohindro Lall Seal (Calcutta, 1890), a student of Sourindro Mohun Tagore; however, after two chapters, he abandoned this effort, writing: 'nous avons pu aller jusque vers la fin du 2ème Chapitre. Je dois avouer qu'une fois arrivés là, nous n'avons pas eu le courage de continuer à transcrire ces inepties, cousues les unes aux autres, et qui ne fournissaient absolument rien au lecteur bénévole et assidu, ou enragé si l'on préfère. Dans l'espoir hasardeux que cet animal de Mohindro Lall Seal viendra un jour en Europe, pour apprendre la musique lui-même, ce dont il a grand besoin, je signe ce procès verbal qui témoigne ma bonne volonté d'apprendre ce que c'est que la musique hindoue, et transmettre cette science ou cet art aux lecteurs de la Bibliothèque du Conservatoire' (F-Pn, RES F-1202). Given the tone of his remarks, it is hard to believe the sincerity of Weckerlin's professed 'good faith'. In any case, I find no evidence that Weckerlin attempted to integrate this scholarship into his compositions.

In contrast to *L'Inde*, there are no musical borrowings marked as such in roughly contemporaneous Indianist theatrical works like Reyer's *Sacountalâ* (1858), Bizet's *Pêcheurs de Perles* (1863), or Meyerbeer's *Africaine* (1865, though mostly written in the 1840s and 50s)[20] – although there are certainly more generic signifiers of 'exoticism', including melismatic soprano melodies and incantations to 'Brahma' in both *Pêcheurs* and *L'Africaine*. Conversely, both Massenet's *Roi de Lahore* (1877) and Delibes's *Lakmé* (1883) feature numbers with paratexts projecting research: a 'mélodie hindoue' in the former, and a sequence of dances titled 'Terâna', 'Rektah', and 'Persian' in *Lakmé*. The sources of these melodies or dances is uncertain;[21] but it scarcely matters: they are effectively 'performative' in the sense that, more than any relationship to an ostensible source or even appeal to a conventional topic, the 'Indian' elements in these works are made 'authentic', and 'Indian', by the composer's mere utterance. So successful were these speech acts that they shaped ways of listening[22]: Julien Tiersot*, two decades on, affirmed a resemblance between Delibes's 'Terâna' and a melody copied in Fétis's *Histoire générale*, which becomes barely visible if one squints (Figs. 7.2*a*–*b*).[23] Of the source of Massenet's 'mélodie', Tiersot was uncertain, but he wrote that 'the techniques employed are entirely similar to those which we recognised from authentic notations...and that is to the composer's honour, whether he used those techniques with the help of faithful documentation, or whether he found them by intuition.'[24] And in 1925, Louis Laloy* remained persuaded of the authenticity of Massenet's 'mélodie', of which he spoke with admiration.[25]

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[20] *L'Africaine* was completed posthumously by Fétis; despite the title, the plot revolves around Vasco da Gama's encounter with Hindu characters.

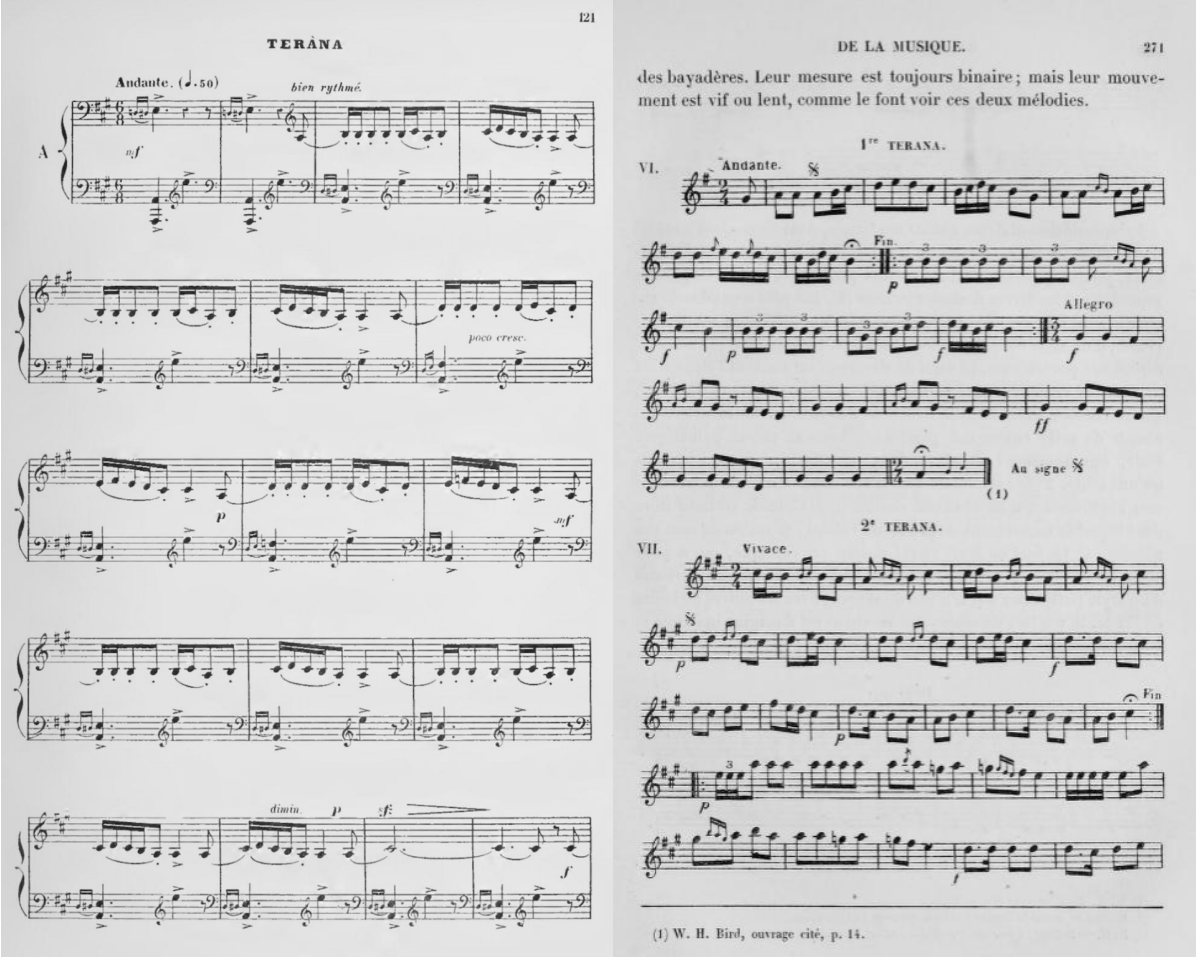
[21] They appear not to have come from Fétis, or from Fétis's own sources, or from other obvious contenders such as Louis Rousselet's *L'Inde des Rajahs* (1875).

[22] This observation is indebted to William Drummond's theory of musical 'arrangement' as a 'way of listening'; the notion of 'authenticity' as constructed through the act of listening to music as an 'arrangement' of a 'source' (whether real/known or imagined/unknown) may be usefully applied to broader instances of musical borrowing, including exoticist evocation. See Drummond, 'Arrangement, Listening, and the Music of Gérard Pesson'.

[23] Tiersot, *Notes d'ethnographie musicale*, 73–4. The comparison seems forced on the part of Tiersot; aside from the same key signature and a similarly restrained melodic ambit, there is little resemblance between the melodies, which are not even in the same time signature. Koechlin also cited what he identified as a 'veritable Hindu theme' in *Lakmé* ('Les tendances de la musique moderne française', 99).

[24] Tiersot, *Notes d'ethnographie musicale*, 73; '...les procédés employés sont tout à fait semblables à ceux dont nous reconnaissons l'emploi dans les notations authentiques... et cela est tout à l'honneur du compositeur, soit qu'il ait su en faire usage à l'aide d'une documentation fidèle, soit qu'il les ait retrouvés par la simple intuition.'

[25] Laloy, 'L'Opéra', 44. Pasler contends that the authenticity of composers' sources was considered unimportant at the time of *Le Roi de Lahore* ('India and its Music in the French imagination', 29–30). I would reframe this point in light of the fact that these composers promoted the impression of authenticity and research through their paratexts (an impression which could be effective whether or not that research was genuine). Therefore, these examples might suggest that the perception of authenticity was becoming increasingly valued – or even that these composers, through their performances, were themselves generating public interest in an authenticity that went beyond 'couleur locale'.



Figures 7.2*a–b*: Julien Tiersot praised Delibes's 'Terâna', left, based on its resemblance to the second 'Terâna' reproduced in Fétis's *Histoire générale* (II, 271), right. The questionable nature of this resemblance demonstrates the effectiveness of Delibes's performance of authenticity.

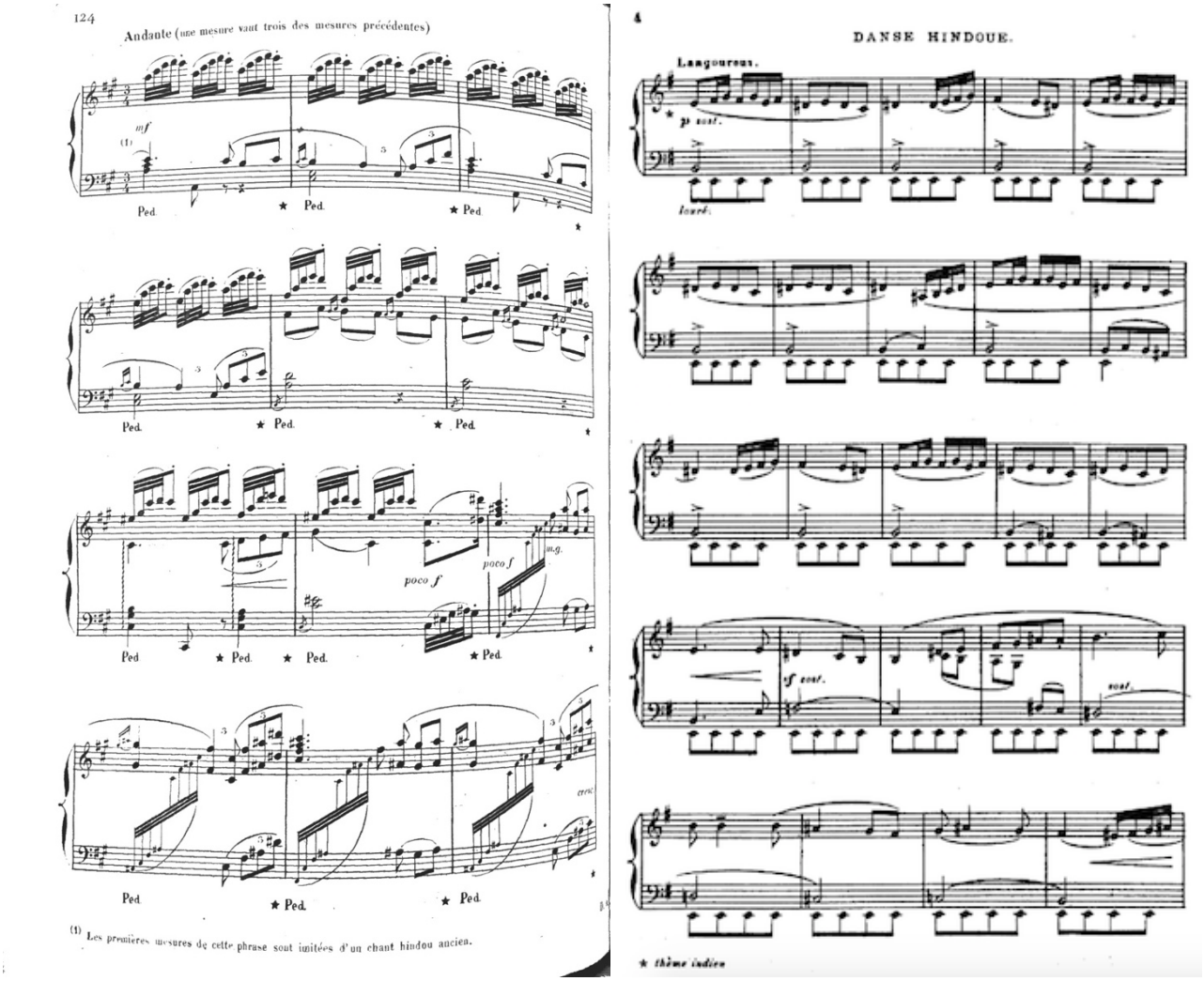
Still, performances of 'authenticity' through labelled melodic borrowings were not at odds with 'exoticist' fantasy. In addition to the above cases, we might add Edmond Audran's opéra-bouffe, *Le Grand Mogol* (1877) – premiered in Marseille and reprised in Paris and London – which featured a 'chanson hindoue'. And Massenet composed music for another Indianist spectacle, *Nana-Sahib* (1883), to a libretto by Jean Richepin for Sarah Bernhardt's Théâtre de la Porte Saint-Martin. Here, the perception of musical authenticity contributes to a sense of exoticist decadence: Richepin's biographer described the production as a 'circus', with its 'palaces, dungeons, fortress, Indian rajas and English governor, soldiers, yogis, dancing girls, beggars, pariah, drums, trumpets, cannons, and Arabian Nights' treasure

cavern,' as well as the 'constant allusion to tigers, elephants, and crocodiles.'[26] Rising to the challenge of composing suitably lavish music to complement the visual spectacle, Massenet included in his *divertissement* a *marche anglaise*, a 'Chant of the Brahmins', and a 'Nautch Hindou'.[27] For the 'Nautch', Massenet referred to a passage from Louis Rousselet's *L'Inde des Rajahs* (1875), which Richepin had clipped and forwarded to him.[28] If the play was not an enduring success, the 'Nautch' became, according to Demar Irvine, its *pièce de résistance*.[29]

In each of the above cases, the paratext took the form of a title or generic attribution. In the decades to come, composers and publishers increasingly wove additional labels into scores to emphasise authenticity with more precision, either as footnotes or alongside the staves. In Charles Lefebvre's *Djelma* (1894), set in Mysore, the *divertissement* at the end of the third act contains a melody, marked with an asterisk to a footnote: 'the first bars of this phrase imitate an old Hindu song'[30] (Fig. 7.3*a*). Two operatic stagings from the early 1900s of the story of Bacchus, both staging his travels to India, feature such paratexts: Alphonse Duvernoy's *Bacchus* (1902) exhibits two themes, marked with asterisk and footnote as 'thème indien', in addition to a sequence of three dances titled 'La Sennak', 'Le Magoudi' and 'La Tchéga' (Fig. 7.3*b*).[31] And I have already discussed the related case of the 'Greek melody based on an ancient text' in Massenet's *Bacchus* (1909), based in part on the *Rāmāyaṇa*. Such performances of authenticity continued in the following decade with the 'motif hindou' labelled in a footnote of Reynaldo Hahn and Jean Cocteau's *Dieu bleu* (1913); and in the 'Old Hindu song' of Debussy's *Boîte à joujoux*, which, as Debussy adds, 'is used, even today, to tame elephants. It is constructed on the scale of "5 o'clock a.m." and is, obligatorily, in 5/4 time.'[32]

The composers' musical treatments of these melodies share little in common. In some cases, the melodies are assimilated to tonal harmonisations; in others, the melodies are isolated against a static backdrop. In the operatic examples, it is noteworthy that these borrowings

[26] Sutton, *The Life and Work of Jean Richepin*, 164.
[27] Irvine, *Massenet*, 138.
[28] Letter from Richepin to Massenet, F-Po, NLAS-118 (197).
[29] Irvine, *Massenet*, 138.
[30] Lefebvre, *Djelma*, 124; 'Les premières mesures de cette phrase sont imitées d'un chant hindou ancien'.
[31] Duvernoy, *Bacchus*, 4, 58–63.
[32] Hahn, *Dieu bleu*, 10; Debussy, *La boîte à joujoux*, 7; 'Vieux chant hindou qui sert, de nos jours encore, à apprivoiser les éléphants. Il est construit sur la gamme de "5h du matin" et, obligatoirement, en 5/4'. Alongside the 'soldat anglais', Debussy's 'chant hindou' seems to reflect an image of India more directly mediated through British colonialism than through notions of shared 'Indo-European' identity.



Figures 7.3*a–b*: Footnotes used to label 'Indian themes' in Lefebvre's *Djelma*, left ('les premières mesures de cette phrase sont imitées d'un chant hindou ancien'), and Duvernoy's *Bacchus*, right ('thème indien').

have often taken place during the ballet sequences (as in *Le Roi de Lahore*, *Le Grand Mogol*, *Nana-Sahib*, *Lakmé*, and *Djelma*). Such *divertissements* often served as platforms for exoticist compositional tropes (e.g., Saint-Saëns's 'Bacchanale'); as orchestral interludes without voice, they were often excerpted into instrumental suites or marketed separately in instrumental or salon arrangements, generating what Pasler has elsewhere called a 'contingency of meaning' whereby the presence of the borrowing was magnified, shaping reception of the work as a whole.[33] In each of these cases, the quotation is sectioned off from the rest of the work by virtue of the composer's paratextual markings. Melodies are thus

[33] See Pasler, 'Contingencies of Meaning in Transcriptions and Excerpts', in which Pasler seeks to establish a methodology for studying a work through the formats by which it became known to the public, including through various transcriptions, arrangements, and excerpts.

imported as archaeological curios and labelled as though displayed in a museum case, informing the beholder that a certain sequence of notes is of specific provenance and value.

Modal 'philology'.

An interest in the 'modality' of Indian music grew concomitantly with composers' increasing engagements with philologically mediated musicological sources and with the perception of Indian music's genealogical relevance for French music. Moreover, the extrapolation of 'modality' as a structural principle, rather than an objectified artefact, afforded the eventual assimilation of Indian 'modal' materials to the musicological theories and compositional techniques that Bourgault-Ducoudray had introduced with respect to Greek materials, as will be demonstrated through the following case studies.

Pierné. *Izéÿl* (1894) by Gabriel Pierné (1863–1937), so admired by Bourgault, represents an early step in this direction, and falls right in the chronological middle of the cases of melodic quotation discussed so far. Pierné, too, partook in labelling his borrowings with paratextual markings. In the piano score of the opening number, 'Aubade', Pierné notes, 'Mode Nettâ'. The third piece, 'Cortège funèbre', is marked 'sur le mode Varati transposé', while the fifth, 'Stances du Prince', is simply marked 'Mode Bhairavi'. Again, these markings were amplified through the excerpts of the work which circulated in promotional press materials: for example, the 'Aubade' with the 'Mode Nettâ' label was printed in a supplemental issue of *L'Écho de Paris* dedicated to the show, and was sometimes performed as an independent excerpt (Fig. 7.4*a*).[34] Moreover, the construction of authenticity signalled through Pierné's modal labels was consistent with the play's marketing strategy as a whole – from the costume designers' consultations at the Musée Guimet (referenced in various papers) to the abstruse diaeresis over the letter 'ÿ', which (we are told in *Le Gaulois*) required the manufacture of special typography to produce the play's publicity materials.[35] These details conspire to express laborious research, and thereby perform 'authenticity'.

[34] *L'Écho de Paris*, 'Sarah Bernhardt et Izeyl' (25/i/1894), preserved at F-Pnas, 4-RT-5891.
[35] See, e.g., features in *Le Gaulois* (23/i/1894) and *Le Monde Artistique* (28/i/1894). The promoters had clearly never needed to print the name of Eugène Ysaÿe.

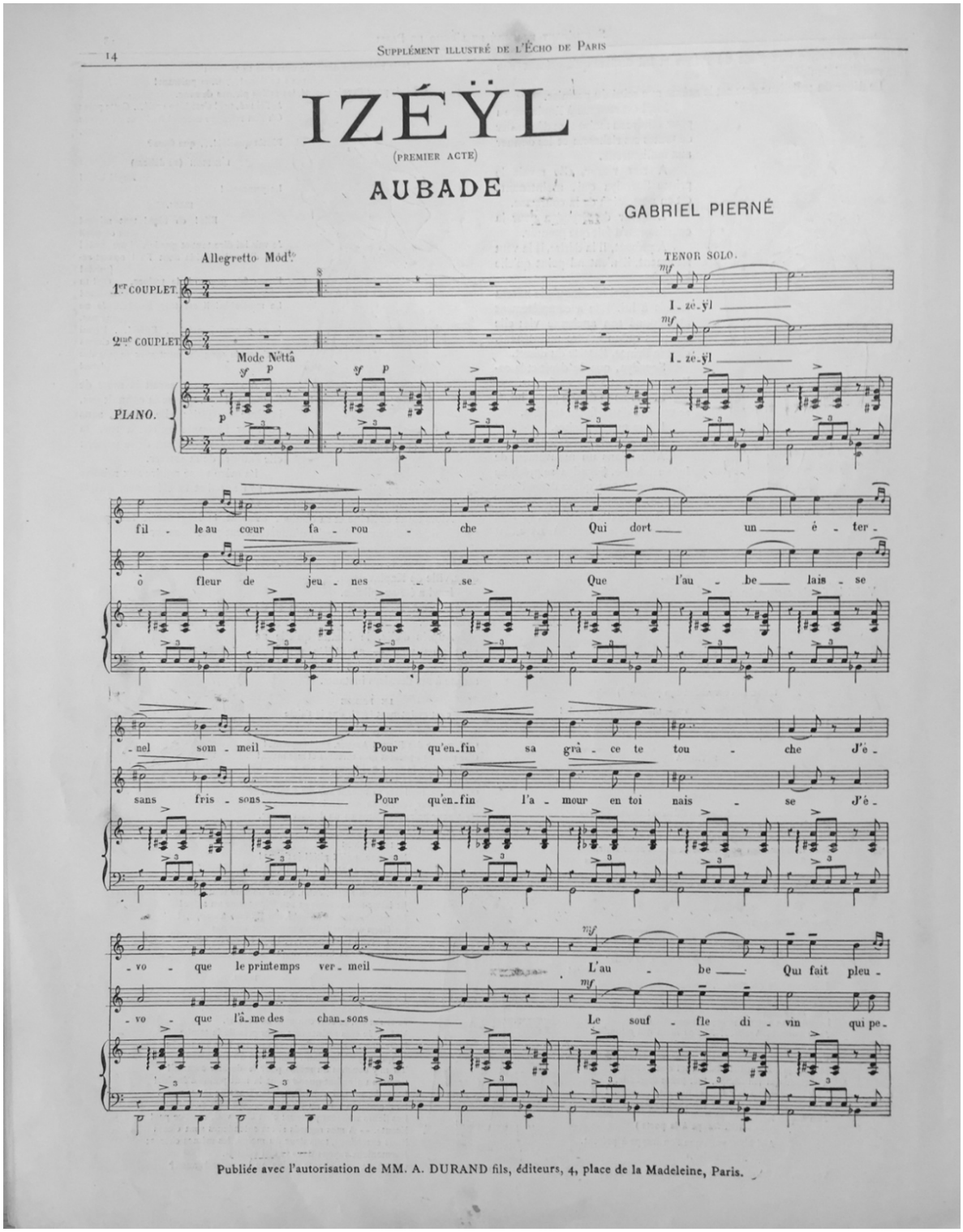


Figure 7.4*a*: Opening of 'Aubade' from Pierné's *Izéÿl*, excerpted in *l'Écho de Paris*. Note 'Mode Nettâ' label (b. 1), and incursion of G♮ outside of modal pitch set (bb. 17–18). (*Photographed by the author, F-Pnas, 4-RT-5891*)

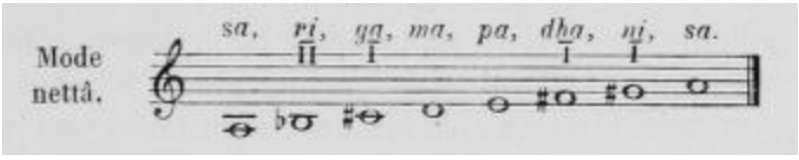


Figure 7.4*b*: 'Mode nettâ', as given by Fétis (*Histoire générale*, II, 213).

What was the musical result of Pierné's modal technique, which Bourgault found 'most remarkable'? Based on his labels, Pierné's modes match corresponding modes listed in Fétis's *Histoire générale* in both name and form (that is, if we disregard, as Pierné appears to have done, the diacritical markings Fétis used to indicate divergences between the pitches on the staff and twelve-tone equal temperament) (Fig. 7.4*b*). Fétis would have remained the most obvious reference source, at least in French, when Pierné was composing *Izéÿl*; Fétis had simply reprinted the modes from William Jones, who in turn had transcribed these modes from the early seventeenth-century *Rāgavibodha* of Somanātha (the source that Jones had considered 'the most valuable book' he saw in India). Pierné's harmonisations adhere almost entirely to their respective modes, with rare exceptions. In the 'Aubade', Pierné deviates from the 'Mode Nettâ' pitch set in only one circumstance, adding G♮'s to the bass in contrast to the G♯'s in the mode. Since these G♮'s consistently precede a resolution to the tonic, A, we might read these harmonies as half-diminished V-6/5 chords with E as the root, approximating a dominant function in the absence of a 'true' dominant in the mode. In this reading, Pierné momentarily forsakes the mode to preserve a skeletal tonal function. Another possible reading is that the use of the flattened-seventh rather than the leading-tone to resolve to the tonic connotes 'modality' in a generic sense (whether conceived as folk, medieval, or ancient), as a distinct marker in contrast to 'tonality'. In this reading, Pierné borrows a shopworn 'exoticising' effect from elsewhere to substitute in a moment where the leading-tone would have seemed more logical, sacrificing the integrity of mode 'Nettâ' for a potentially more recognisable, stereotypically 'modal' progression. Either way, it is clear that Pierné is negotiating a tension between the opposed strictures of tonal harmony, the received traits of an 'exotic' topic, and his chosen modal pitch set. A similar tension occurs in the number, 'Stances du Prince'. The melodic material strictly adheres to Fétis's mode 'Bhairavi'; however, in the harmonic underpinning, Pierné introduces an F♮ into the mode. Again, therefore, Pierné appears drawn between two positions: adherence to the 'Indian' modal pitch set on the one hand, and his harmonic and compositional training on the other. Ultimately, Pierné's technical mastery of Conservatoire harmonic training is sovereign: he flirts with these modes, but does not grant them absolute control, and is willing to intercede on behalf of more familiar tonal or 'modal' tropes.

In this aspect, Bourgault's imprint on Pierné's harmonisation technique is clear. For Bourgault, modes guided harmonisations, but they were not absolute: appealing to notions of

'character', Bourgault chose harmonies that he felt best incarnated the spirit, if not the letter, of a mode – the flexible approach observed in his Greek songs.[36] Pierné, similarly, sought a balance between the modal constraints of his melody and his impulse to harmonise in keeping with prevailing idioms. In the end, Pierné, like Bourgault, maintained a rhetorical, paratextual loyalty to 'mode' – but his harmonic instincts, linked to his training and justified by his sense of 'character', prevailed in the final product. The extent to which Pierné had Bourgault in mind when writing with Indian modes is difficult to confirm. Pierné and his family, who were musically inclined, were friends with Bourgault and his family. Pierné certainly could have attended Bourgault's course at the Conservatoire; whether or not he did, the two maintained a steady correspondence during Pierné's years at the Villa Médici as a Prix de Rome laureate.[37] It seems altogether likely, therefore, that when called upon to provide music for a 'drame indien', Pierné would have been drawn to Bourgault's approach. Bourgault, for his part, happily accepted credit in his letter to Burnouf: '[*Izéÿl*] is most remarkable. I was right to advocate these new techniques, and those with skill have made use of them.'[38]

Séverac. Similar modal techniques are employed by Déodat de Séverac (1872–1921) in *Héliogabale* (1909), composed for open-air performance at Béziers. If it is difficult to pinpoint Indo-Europeanism as an ideological dimension of *Izéÿl*, in contrast, Indo-Europeanist contexts may be integral to the dramatic arc of *Héliogabale*, and to its appropriation of Indian 'modality' – as I shall argue below. First, the musical data: like Pierné, Séverac annotates his score to indicate the use of Indian modes in two locations, both in the central ballet of Act III titled 'La Résurrection d'Adonis'. The opening dance, 'Les Funérailles d'Adonis', is marked, 'based on the ancient Hindu mode "Asaveri", transposed'; the subsequent number, titled 'Danse de la résurrection d'Adonis', is marked parenthetically, '(in the mode "Hindola")'.[39] Séverac's modes, like Pierné's, match those in Fétis's collection. Moreover, like Pierné, Séverac appears to consider the modes as a principally melodic matter. In general, his treatment of the modes is more liberal than Pierné's (he does, after all, write 'd'après le mode', as if to suggest that the section is 'based on' the mode, if not strictly). The two themes

[36] Bourgault-Ducoudray, *Trente mélodies populaires de Grèce et d'Orient*, 8; 'nous avons fait obéir l'harmonie à la mélodie, nous efforçant de conserver dans nos accompagnements le caractère du *mode* auquel la mélodie appartenait' [Bourgault's emphasis]; see above, Chapter 5.
[37] See Pierné, *Correspondance romaine*. Cyril Bongers mentions in his introduction the family friendship between the Piernés and the Bourgault-Ducoudrays (xi).
[38] Letter dated 7/iv/1894, F-NAbud, fonds Émile Burnouf; 'Cette musique est des plus remarquables. J'avais raison de prôner ces moyens nouveaux et les habiles s'en sont servi.'
[39] Séverac, *Héliogabale*, 140; 'd'après le mode ancien hindou "Asaveri" transposé', and 150; '(dans le mode "Hindola")'.

based on ‘Asaveri’ are harmonised with ample chromaticism; and his interpretation of the pentatonic ‘Hindola’ plays with and displaces the pitches, preserving only a loose sense of the mode’s intervallic identity (Fig. 7.5).

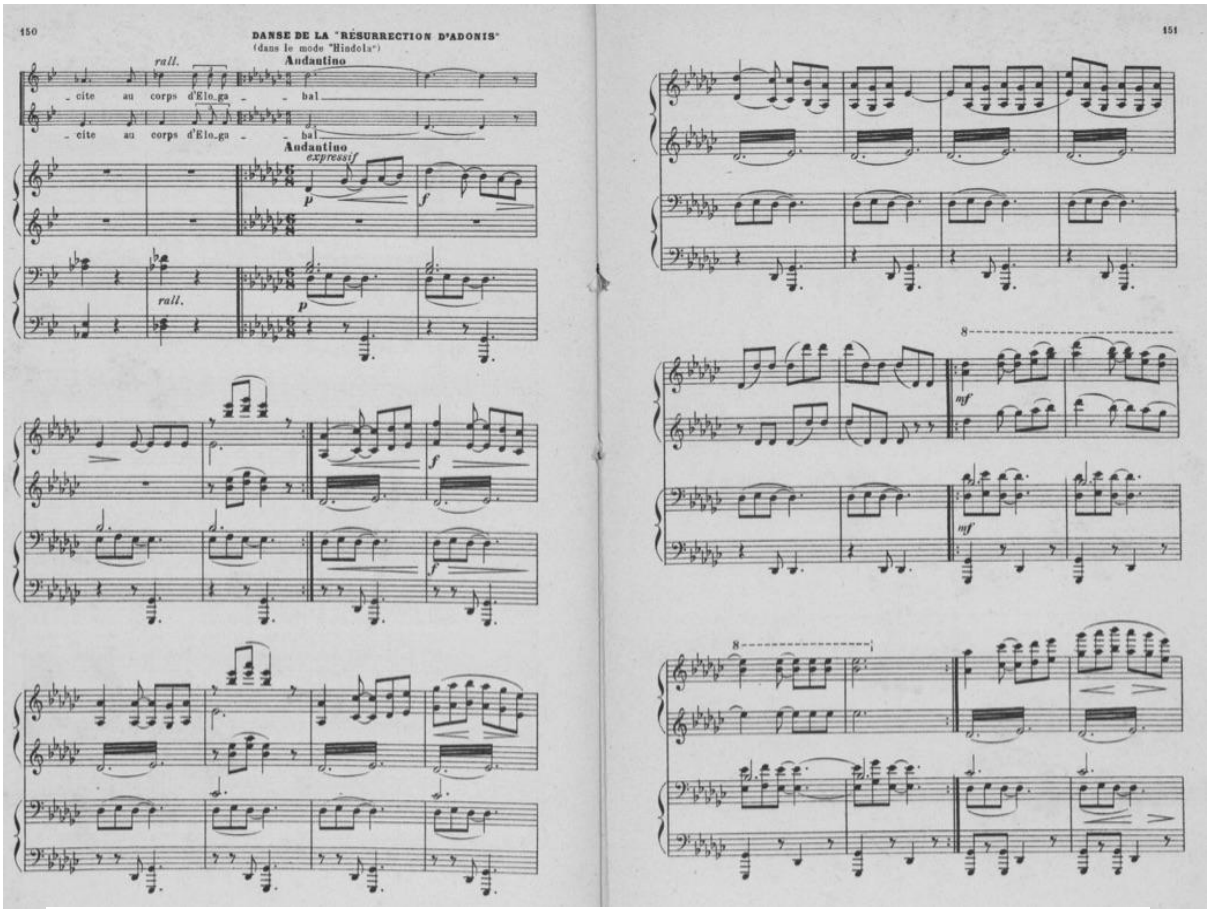


Figure 7.5: From Séverac’s *Héliogabale*, passage marked ‘(dans le mode “Hindola”)’.

Unlike *Izéÿl*, *Héliogabale* is not set in India, and its characters are not Indian. Rather, it dramatises the emergence and triumph of Christianity over paganism in the ancient Roman empire. This scenario offered Séverac the occasion to experiment with a vast palette of sounds and textures: as he wrote to Carlos de Castéra, ‘You can see everything one can make of these contrasting colours with the music (Christianity. West. East)’.[40] In his exuberant reading of the work, Vladimir Jankélévitch pits these two worlds against one another just as Séverac appears to in *Héliogabale*: ‘Between Christian spirituality and the voluptuous dances of pagan seduction, how to choose? and must one choose? and on which side, in the end, was Déodat

[40] Séverac, *La musique et les lettres*, 340; ‘Tu vois tout ce qu’on peut faire des contrastes de couleurs avec la musique (Christianisme. Occident. Orient)’.

de Séverac?'[41] In the prevalent critical readings of *Héliogabale* as an East-meets-West confrontation, the Indian modes are interpreted simply as indexes of the 'East'[42] – particularly given the context of the Act III ballet, which stages Héliogabale's climactic final hurrah, complete with orgiastic dance and ritual, virile paganism bloating into decadence before being eclipsed by sober and stately Christianity.

Yet there may be more to be read into Séverac's choice of Indian modes, in particular, than generic 'oriental' associations, and that the 'Hindu' label may be more carefully calculated. Familiar contexts come into play: Séverac, alongside his librettist Émile Sicard, sought to infuse the music and scenario with a maximum of *latinité*, reinforcing the links presumed to tie the south of France to ancient Greco-Roman glory, and building upon the Félibrige project, as Andrea Musk and Christopher Moore have explored in depth.[43] Furthermore, the attention to (or performances of) archaeological and philological 'authenticity', already exemplified by Saint-Saëns's open-air works the previous decade, are refreshed. Theatre critic Gabriel Boissy, the Béziers programme informs us, choreographed 'with as much fidelity as possible' the processions according to those which would have accompanied Roman emperors.[44] Séverac's own performances of authenticity in the score go beyond the identification of Indian modes: later in the ballet sequence, Séverac marks another passage hellenistically, '(In the early phrygian mode)'.[45] And earlier in the work, Séverac quotes and labels plainchant materials: first, there is the 'Thème liturgique' in the baptismal scene of Act II (with the explanatory footnote, 'Ce Thème est le Thème d'un *Verset de Vêpres* d'un "Confesseur non pontife"');[46] and second, there is the 'Alleluia' sung by the Christians at the work's closing scene.[47] Séverac took particular pains to get these themes right, checking with Vincent d'Indy* (via Castéra) as to the exact chant melody, and asking whether it would not be too

[41] Jankélévitch, *La présence lointaine*, 125; 'Entre la spiritualité chrétienne et les danses voluptueuses de la séduction païenne, comment choisir? et faut-il seulement choisir? de quel côté, en somme, se trouvait Déodat de Séverac?'
[42] Beyond Jankélévitch, see, e.g., Buser Picard, *Déodat de Séverac ou Le Chantre du Midi*, 152; Moore, 'Regionalist Frictions in the Bullring', 237–8. Jankélévitch, for example, reads the 'Hindu' modes of *Héliogabale* as 'une sorte de pittoresque oriental', and as evidence of Séverac's 'curiosité et son goût de l'étrange' (*La présence lointaine*, 117); Buser Picard, too, views them as generic 'modes exotiques' (152).
[43] For the fullest discussion of *latinité* in *Héliogabale*, see Musk, 'Regionalism, *Latinité* and the French Musical Tradition'; see also, Moore, 'Regionalist Frictions in the Bullring', 234–9, and Chapter 6, above.
[44] Quoted in Buser Picard, *Déodat de Séverac*, 150–1.
[45] Séverac, *Héliogabale*, 162; '(Dans le mode phrygien primitif)'.
[46] Ibid., 75. The 'Thème liturgique' is more fully taken up on p. 78. The theme is from 'Fidelis servus et prudens', the third of five *cantus firmi* set by Séverac in an organ suite from his days at the Schola, only published in 1914.
[47] Ibid., 188–92.

excessive an anachronism to use it in the context of the second-century setting of *Héliogabale* (he was ultimately undeterred).[48] And instrumentally, Séverac employed the stereotypical proliferation of ostensibly Hellenic instruments onstage: lutes, lyres, pan flutes, and the like.[49]

However, Séverac extended his ambit yet further, beyond Greek modes and plainchant, in his desire to create an 'absolutely southern' work.[50] Reaching beyond Greco-Roman antiquity, Séverac projected forward in time (in the imagined westward teleology of *latinité*) by employing oboists from a Catalan *cobla* ensemble (one of the most remarked-upon features of the score), a metonym of his own Roussillonnais identity.[51] And, I would venture, his choice of Indian modes was the exact opposite: a projection backward in time, to the perceived roots of the 'race', less an exotic 'other' than a primitive 'self', rooted in the coalescence of latinist and aryanist narratives of ethnic history. In such a reading, Séverac 'collapsed' together the orientalism, classicism, and regionalism of his work through the ostensibly shared musical resource of Indo-European 'modality' – an epic sweep extending from India via Greece and Rome through to European folk music – and staged in his beloved, sun-dappled Midi.[52] Indeed, the staging in southern France was critical to the work's success, as Moore and Ellis have shown[53] – perhaps, also, because it is only there, *in situ*, that the full arc of Séverac's vision, the realisation of the Indo-Europeanist teleology he reanimates, is achieved. To answer Jankélévitch's question, Séverac did not have to choose sides: all of these elements contributed to one whole.

Roussel. Séverac received a warm message of congratulations for the success of *Héliogabale* from Albert Roussel (1869–1937), his friend and former classmate, who also turned to Indian sources at roughly the same time.[54] Roussel is exceptional among the

[48] Séverac, *La musique et les lettres*, 339–40.
[49] Moore, 'Regionalist Frictions in the Bullring', 237.
[50] Quoted in ibid., 235.
[51] On Séverac's interest in the *cobla*, see Waters, 203–8. Here we may draw a parallel between Séverac's *cobla* and Katharine Ellis's reading of the local *farandoleurs* brought in for Arles productions of *Mireille* – 'not an exercise in autoexoticism' but a 'statement of ethnic identity' (*Mireille*'s Homecoming?, 485) – although the ideological dimension of the latter need not exclude the aesthetic possibility of the former, at least in the case of *Héliogabale*.
[52] Séverac's sweep here maps cleanly onto the scope of musical Indo-Europeanism articulated in Émile Burnouf's 1886 article, 'Les chants populaires et le plain-chant', discussed in Chapter 2, above.
[53] Moore, 'Regionalist Frictions in the Bullring', 237–40; Ellis, 'Open-Air Opera and Southern French Difference at the Turn of the Twentieth Century', 190–2.
[54] The previously unpublished letter is reproduced in Buser Picard, *Déodat de Séverac*, 156. Another composer who turned to Indian sources, potentially through the direct influence of Séverac, was the adolescent Georges Auric, who composed *Trois chants populaires hindous* (based on melodies from Fétis's *Histoire générale*)

composers discussed so far in that he had been to India. Roussel had already travelled extensively with the French Navy in his younger years, from 1887 until his resignation in 1894, at which point he committed himself to training as a musician, enrolling (like Séverac) at the Schola Cantorum with d'Indy. In 1909–10 he returned to India and Cambodia for three months with his wife, Blanche, this time keeping a slim manuscript notebook in which he recorded a range of musical fragments and ideas.[55] Unlike the others, therefore, Roussel's experience of Indian music was not limited to published scholarly resources, and souvenirs from Roussel's trip made their way into a number of his compositions – particularly his choral symphony *Évocations* (1910–11) and his opera *Padmâvatî* (1913–18).[56] Because both of these works are responses to India, they are easily and often grouped together, constituting a phase of Roussel's career; their respective mediations of Indian music, however, are radically opposed, and taken together, the two neatly illustrate India's ambivalent position – between faraway land of 'exotic' mysticism, and locus of shared 'Indo-European' heritage.

Évocations constitutes 'exoticism' in a deliberately generalised sense, as Roussel explicitly sought to avoid any specificity of place. Abiding by advice from d'Indy, he conceived of *Évocations* as a testament to the subjective impressions produced by his travels, rather than an integration or assimilation of musical cultures or structures, and intentionally left its location vague: 'India, Tibet, Indochina, China, Persia, it doesn't matter,' Roussel wrote to Jean-Aubry.[57] One fragmentary quotation of a devotional chant (the song of the 'Fakir au bord du Gange'), recorded in the slim sketchbook Roussel had brought with him on his travels, became the basis of an extended poetic quatrain in the third movement; yet Roussel obfuscated the source of the quotation, and ultimately characterised the work as 'a lot more European than Hindu'. As Henry Prunières noted, the work owes more to Debussy than anyone else.[58] *Padmâvatî* represents a major change of course. The work was conceived in 1913 upon an invitation from Jacques Rouché, who was to become director of the Opéra the following year. Rouché asked for either a 'drame lyrique' or a 'ballet', to be premiered at the start of his tenure – although the outbreak of World War One interrupted plans, so that the

sometime between 1911–13. Auric, still in Montpellier during these years, had been introduced to Séverac (Roust, *Georges Auric*, 12–16). Incidentally, in 1913, Auric moved to Paris, where he very soon met Roussel.
[55] Roussel, 'Carnet d'esquisses d'Albert Roussel (Datant Du Voyage Aux Indes)', 1909, B-Br, Mus. Ms. 1.562. See also, Van Haeperen, 'Albert Roussel: un carnet d'esquisses inédit'.
[56] *Évocations* has been studied in detail by Pasler (in both 'India and its Music in the French Imagination' and more thoroughly in 'Race, Orientalism, and Distinction', in which she assesses Roussel's compositional framing of India and Indian music in relation to that of Delage). Pasler does not explore *Padmâvatî*.
[57] Quoted in Pasler, 'Race, Orientalism, and Distinction', 94.
[58] Ibid., 94–5; Prunières, 'A Roussel Festival', *The New York Times*, 26/v/1929, sec. X, p. 8.

work was finalised in 1918 and only premiered in 1923. In response to Rouché, Roussel recalled the story of 'Padmâvatî' – the beautiful queen who, following the Mughal invasion of Chittor, chooses to die rather than sacrifice herself to their leader Alaouddin – from his travels in India. He sought the collaboration of another old classmate from the Schola, Louis Laloy* – musicologist, hellenist, sinologist, and secretary general at the Opéra.

In place of field sketches and impressions, Roussel and Laloy turned to two historical models. The first of these came from the eighteenth century. They conceived of the work as an 'opéra-ballet' – an emblematically French genre not staged at the Opéra since 1773[59] – joining in the blossoming interest in Baroque forms while casting a coy eye at the immensely popular artistic competition of the Ballets Russes.[60] The second historical model was early Indian music: although Roussel had seen Chittor himself and paraphrased Padmâvatî's story in the journal he kept during that period, Laloy sourced two literary accounts of the tale at the library of the École des langues orientales.[61] Laloy thus brought a degree of orientalist expertise to the undertaking, one upon which Roussel relied: in letters from 1914, Roussel sought resolutions to discrepancies between the different sources (such as whether Alaouddin was a 'Turk' or a 'Mughal', details which preoccupy him not for musical reasons, he notes, but for the sake of 'some rather punctilious people');[62] he also confirms the accentuation of Padmâvatî's name, confirming with Laloy that the final 'î' should indeed be a stressed vowel and wear a circumflex in transliteration. Roussel stresses the sensitivity of these issues in his unusual remark that 'a horde of Hindus could come to France after the war, and it behoves us to pay attention to all these details!'[63] – suggesting his persistent awareness of *Padmâvatî*'s eventual reception, and determination that it should be received not as superficially 'exotic' but historically 'authentic'.

[59] James R. Anthony, 'Opéra-ballet', *Grove Music Online*.
[60] Macdonald, '*Padmâvatî*: Oeuvre Lyrique ou chorégraphique', 92. On *Padmâvatî* and the revival of the opéra-ballet genre, see Caddy, *The Ballets Russes and Beyond*, 201–5.
[61] The two accounts they used are *Padmavat* by Malik Muhammad Jayasi (c. 1540) and *Gora Badal ri Katha* by Jatmal Nahar (1623), which are both examined by Théodore Pavie in *La Légende de Padmanî, reine de Tchitor* (1856). For a thorough account of retellings of this story, including appendices with synopses and lists of versions, see Sreenivasan, *The Many Lives of a Rajput Queen*. Roussel's own documentation of the story in his travel journal is reproduced in *Lettres et écrits*, 183–4. (Pavie had been a Sanskrit student of Eugène Burnouf; his writings also gave rise to Delibes's *Lakmé*.)
[62] Hoérée, 'Lettres d'Albert Roussel à Louis Laloy', 73; 'des gens un peu pointilleux.'
[63] Quoted in ibid.; 'Il peut venir après la guerre un tas d'Hindous en France et il convient de faire attention à tous ces détails!' If Roussel's tone here seems faintly arch, his concern for detail seems sincere.

The most striking evidence of Roussel's preoccupation with philologically mediated 'authenticity', however, is in the music itself. Shunning the personal transcriptions from his Indian travels which he had used in *Évocations*, Roussel turned to the seventy-two heptatonic 'Échelles Karnâtiques' (Carnatic modes), which had been freshly published by Joanny Grosset in Lavignac's *Encyclopédie* in the interval between the completion of *Évocations* and the inception of *Padmâvatî* (Fig. 7.6).[64] Perhaps Roussel was drawn to the new resource by Laloy, who had favourably reviewed Grosset's 'voluminous treatise on Indian music, with examples, figures, and tables' in *Comœdia* right as *Padmâvatî* was being composed.[65] Unlike Pierné and Séverac, Roussel did not, for a change, label his modal passages in the score; however, knowledge about his use of them came to circulate widely. 'Modality', and Indian modality in particular, was framed as a central component of Roussel's musical language from the mid-1920s, when Nadia Boulanger analysed the work and its 'modality' in lectures delivered at the École normale de musique and reprinted in the special Roussel issue of *La Revue musicale* in 1929.[66] Much was made of Roussel's modal technique in Arthur Hoérée's article in the same issue – in which he noted that 'la musique hindoue' was 'the most fecund from a modal point of view' – and again the following decade, when Paul Landormy analysed the work in *The Musical Quarterly* following the composer's death.[67] Roussel saw to some of this reception himself: he wrote to Maurice Emmanuel in response to the latter's

[64] Grosset's article in Lavignac's encyclopedia is discussed at length in Chapter 4; these seventy-two modes are a representation of the *melakartā* system of rāga classification, in which philologists had recently taken an interest. On the ambivalent relationship between southern India and Indo-Europeanism, see Chapter 4, note 26. Roussel may have been the first composer to draw upon Grosset's chapter, and the first French composer to intentionally employ the Carnatic scales; however, Gustav Holst had recently used several of these scales (sourced directly from C. R. Day) in his *Choral Hymns from the Rig Veda*, op. 26 (1908–12) (see Ghuman, *Resonances of the Raj*, 130–7). It seems unlikely (if not impossible) that Roussel would have known this composition, although it was performed in Paris on at least one occasion prior to the composition of *Padmâvatî*, by the London-based Edward Mason choir competing at the Concours international de musique (Salle Gaveau, 28/v/1912).
[65] Laloy, 'La Musique chez soi', *Comœdia*, 12/ii/1914, p. 2; 'M. Grosset, écrit un volumineux traité sur la musique indienne, avec exemples, figures et tableaux'.
[66] Brooks, *The Musical Work of Nadia Boulanger*, 32; Boulanger, 'L'œuvre théâtrale d'Albert Roussel'.
[67] Hoérée, 'La Technique de Piano d'Albert Roussel', 88; 'la plus féconde au point de vue modal'; and Landormy, Paul, 'Albert Roussel (1869-1937)'; see also, Kelkel, 'Roussel et l'exotisme musical'.

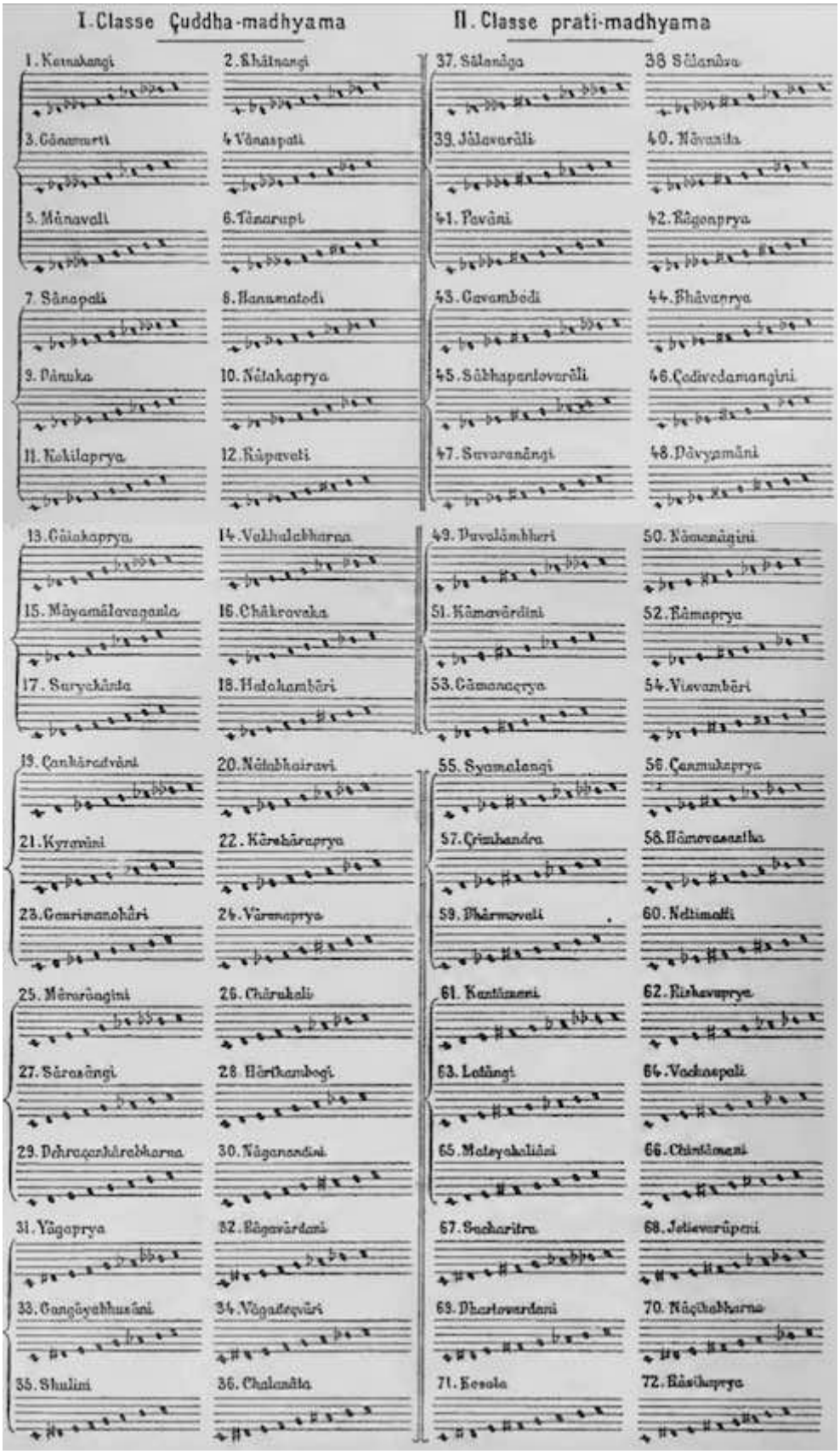


Figure 7.6: Table of '72 Échelles Karnâtiques' (Carnatic modes) published in Joanny Grosset's chapter of Lavignac's *Encyclopédie de la musique* (I, 325–6)

article on ‘polymodality’, explaining his own modal techniques in the ‘chant du brahmane’ (although without reference to his source).[68]

However, for all the attention paid to the ‘modality’ of *Padmâvatî*, what was never noted – at least not explicitly, for perhaps it long appeared too obvious – is that Roussel’s deployment of the Carnatic modes was calculated and confined: the only melodies adhering closely to the modes are arias sung by the opera’s Hindu characters, such as the brahmin, Nâkamtî, and Padmâvatî herself; never Allaoudin or his Mughal forces (Fig. 7.7). Roussel thus created a distinctly ‘modal’ sonic space for these sympathetic characters, to contrast with a dense

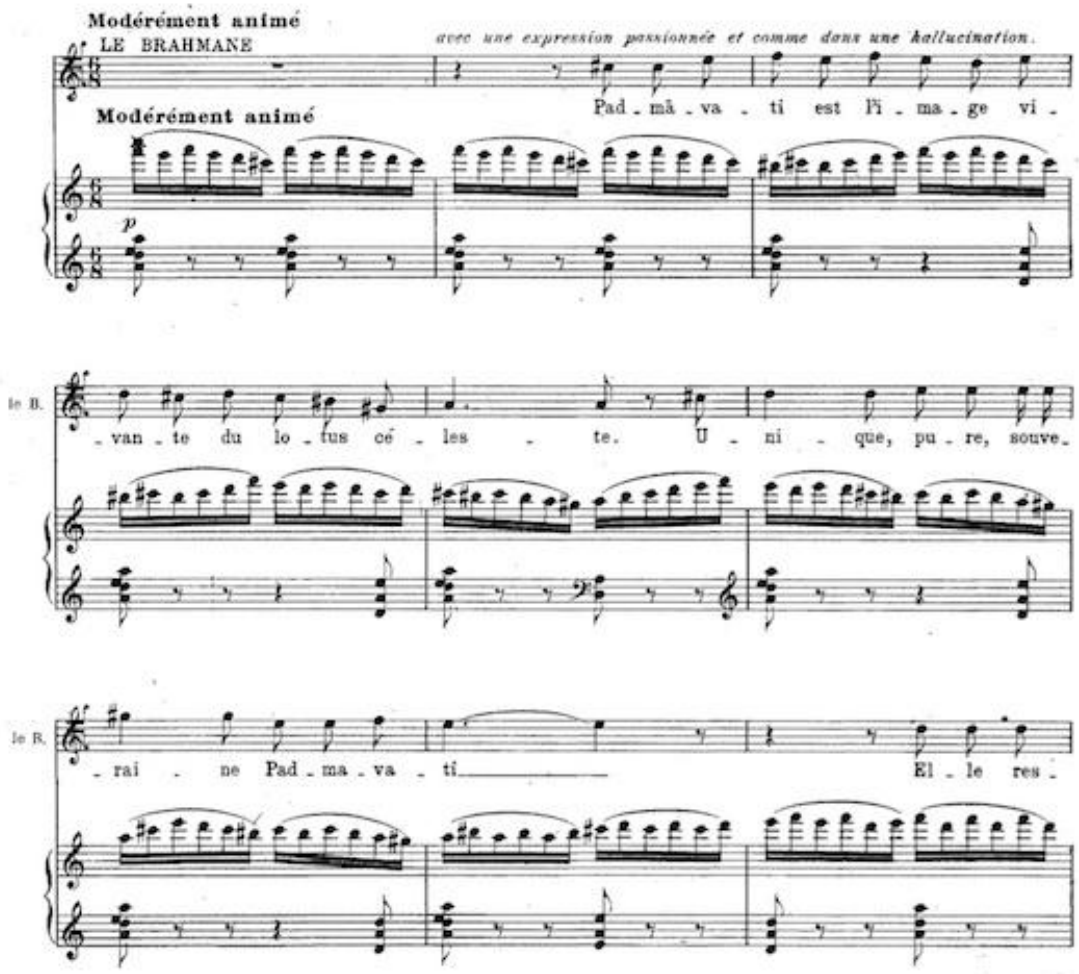


Figure 7.7: From *Padmâvatî*, the strictly modal ‘Air du Brahmane’, Act I (compare to Grosset’s ‘Carnatic mode’ no. 33, ‘Gangâyabhusâni’)

[68] Roussel, *Lettres et écrits*, 139–40. Roussel himself retrospectively sketched a list of modes used in *Padmâvatî* in a manuscript, although the reason for this analysis is unknown (F-Pn, Ms. 23448). Rather than transcribing the Sanskrit mode names given by Grosset, Roussel describes them in prose as various alterations of major or minor. Excerpts from this analysis are reprinted in Kawka, ‘Une auto-analyse inédite d’Albert Roussel’.

chromaticism deployed elsewhere, tapping into tropes of programmatic 'exoticism'. Roussel's conscientious application of the 'modes' in Hindu arias suggests that he drew upon the prevalent musicological assumptions about a genealogy of 'Indo-European modality' and sewed into the compositional fabric a sort of musical identification with the Hindu characters and their cause of resistance against threatening 'others'. This identification would be further enhanced by the fact that all four of the extracts of *Padmâvatî* published as *tirés-à-part* were arias sung by the opera's Hindu characters (three of them strictly modal), a 'contingency of meaning' by which they could become sympathetically identified with French publics.[69] In this way, Roussel dramatised the link between ancient 'Hindu' music and French 'ethnic' identity which was, as we have seen, a mainstay in the musicological representations of Indian music, including those of Grosset (Roussel's source), and Woollett (Roussel's friend, with whom he continued to meet in 1914).[70] Moreover, the importance of 'race' in compositional practice was integral to Roussel's rhetoric in the periods bookending the *Padmâvatî* project. In 1909, he expressed the necessity for French music to 'personify in an increasingly affirmative and vigorous manner, the genius of our race'.[71] He echoed these sentiments in 1926, imploring that 'each race conserve in its music the ethnic characteristics that give it its particularity and originality'.[72]

Recent musicological literature has tended to view *Padmâvatî* through the lens of exoticism, similarly to *Évocations*;[73] and clearly, *Padmâvatî* exemplifies numerous familiar hallmarks of 'opéra oriental' – not least the narrative trope of yet another vulnerable mezzo-soprano under threat of sexual violation by the uncompromisingly brutal invader. Yet alongside these exoticist tropes (which are directed especially toward Alaouddin and his entourage) runs a current of ethnic nationalism, manifested musically through 'Indian modality' and 'Baroque opéra-ballet', each conceived as 'historical pasts' or 'sources of Frenchness', rather than

[69] We might observe operatic parallels here with a number of precedents in which sympathetic links are drawn between European audiences and 'Indo-European' characters facing (typically Muslim) invasions – Massenet's *Roi de Lahore* and Augusta Holmès's *Montaigne Noire* are two examples, as is Bourgault-Ducoudray's *Thamara*, as discussed in Chapter 5.
[70] Roussel's diaries show that Roussel and Woollett met on at least one occasion that year (4 April, at 11am); F-Pn, Res. VMF Ms. 120; Woollett's writings on Indian music and aryanism are discussed in Chapter 2.
[71] Roussel, 'Wagner et nos musiciens,' *La Grande revue*, 10/iv/1909, 558–9; quoted in Messing, *Neoclassicism in Music*, 12.
[72] Roussel in *Le Monde musical*, 30/vi/1926; quoted in Ellis, *French Musical Life*; 'je souhaite que chaque race conserve dans sa musique les caractères ethniques qui lui donnent son aspect particulier et son originalité.'
[73] Hervé Lacombe, for example, called *Padmâvatî* 'without question the end product of exotic opera's long evolution' (*The Keys to French Opera*, 205); see also, Moura, *La Littérature des lointains*, 390n17; and Richard Langham Smith, '*Padmâvatî*', in *New Grove Opera*.

'others'. In *Padmâvatî*, therefore, 'opéra-ballet' and 'opéra oriental' are 'collapsed' together like 'a set of Russian dolls' (to borrow Katharine Ellis's metaphor), in a project of ethnic composition.[74]

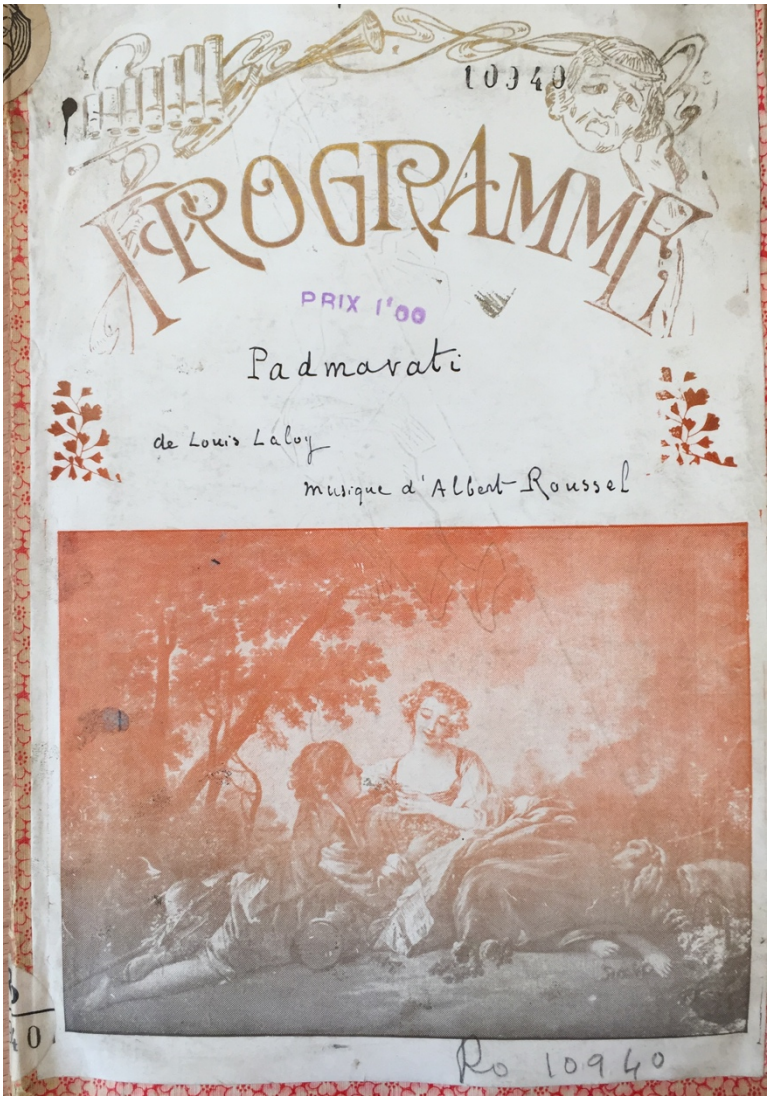


Figure 7.8: A 1923 programme for *Padmâvatî*, featuring Watteau-esque imagery more suggestive of 'opéra-ballet' than 'opéra oriental'.
(*Photographed by the author, F-Pnas, 8-RO-19040*)

Assimilation and abstraction.

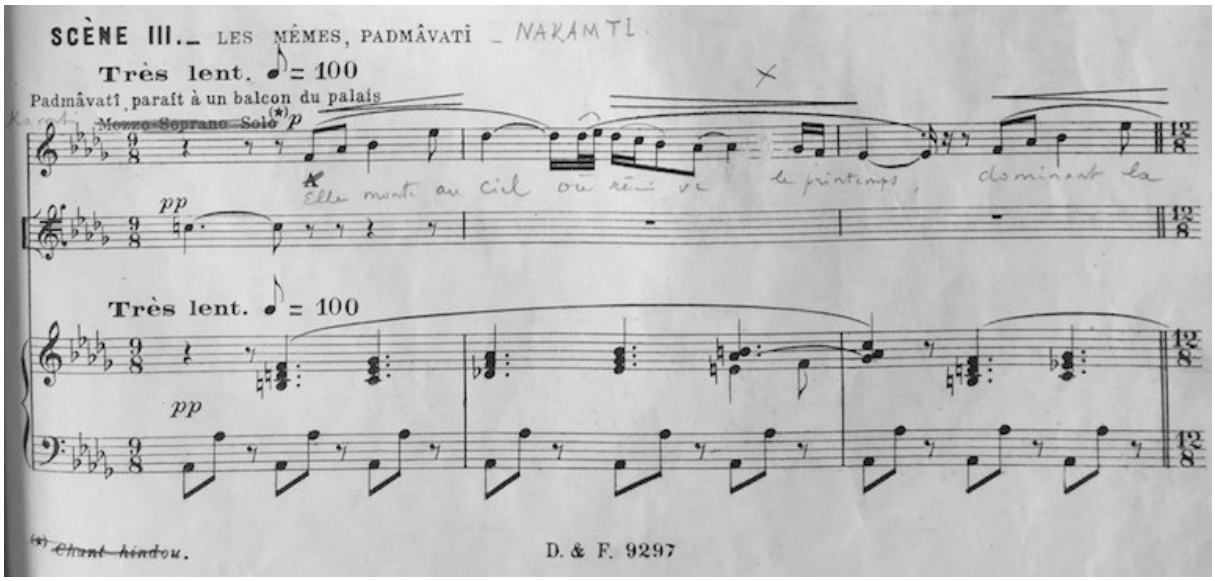
I observed above that Roussel deviated from Pierné and Séverac by not labelling his Indian borrowings in the score; in this respect, we might draw a parallel between Roussel and Bourgault-Ducoudray, who, unlike Bruneau and Saint-Saëns, did not label his rearrangement

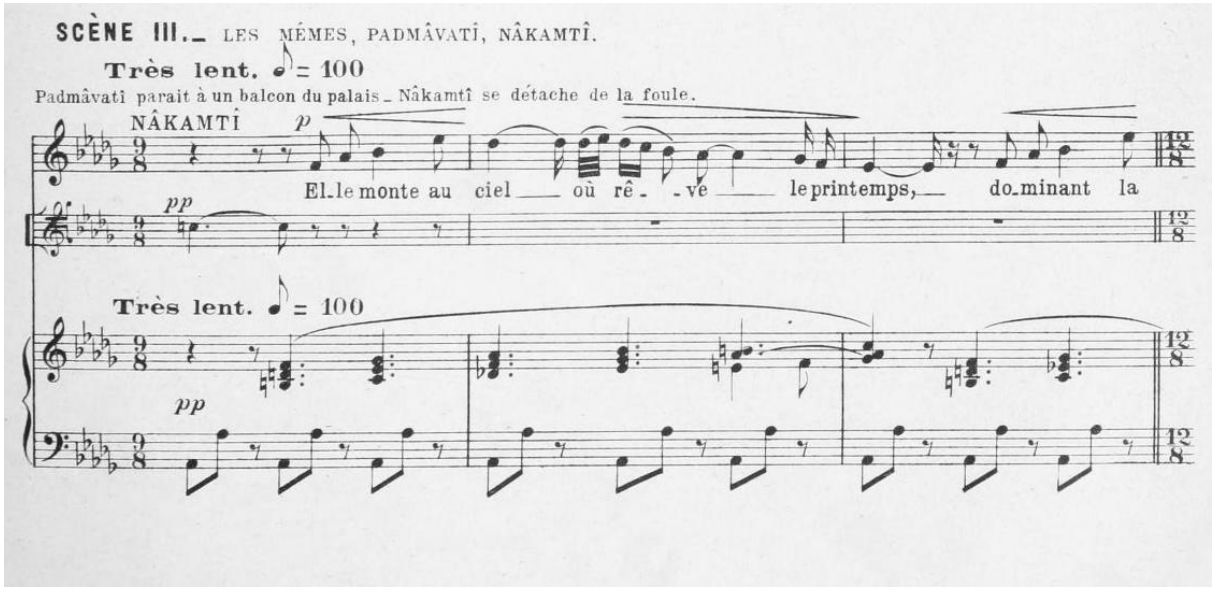
[74] Ellis, 'Patrimoine in French Music', 20.

of Breton and Greek melodies, weaving them seamlessly into his compositional tapestry, as I have argued. However, there is more to the story: in fact, the question of labelling caused Roussel some hesitation. The passages in question are two prolonged soliloquies – the first sung by Nâkamtî in act I, scene 3; the second sung by Padmâvatî to conclude the first act – each melody exemplifying Roussel's 'modes'. In the final published version, these melodies bear no special marking. But publisher's proofs from Durand, with Roussel's corrections, reveal that Roussel had originally labelled each of these passages, respectively, 'Chant hindou', and 'D'après un chant hindou'. These labels, having originally been printed in the score, were then crossed out by Roussel when reviewing the proofs, and were thus eliminated from published print runs (Figs. 7.9*a–b*).[75] Both the initial impulse to label the melody, and the subsequent act of unlabelling it, reveal a degree of philological performance anxiety. Why might Roussel have balked? One can only conjecture. Perhaps Roussel's borrowing was not so precise a quotation after all, and Roussel decided not to claim that it was; could he have continued worrying that his 'horde of Hindus' would find 'inauthentic' loose ends in his work? None of the sketches in Roussel's travel carnet can really be said to match Nâkamtî's or Padmâvatî's arias – although there is one possible source for Padmâvatî's song in Grosset's article, judging loosely by melodic contour (Fig. 7.9*c*).

Another possibility, not incompatible with the first, is that Roussel was responding to shifting tastes between 1914 (when the bulk of *Padmâvatî* had been composed) and after the Armistice. Hugh Macdonald contends that *Padmâvatî* would have been far more enduringly popular had it premiered in 1914 as intended, when tastes for musical 'exoticism', as well as ballet, were still at their pinnacle.[76] Perhaps post-War stylistic shifts toward formalist (neo)classicism and away from 'exoticist' representation led Roussel to rethink the overtness of his borrowing. (In a similar vein, it was during the War years that Roussel decided to abandon plans for another opéra oriental, *Le Roi Tobol*.[77]) This explanation resonates with the press coverage's prevailing focus on the work's generic tribute to the opéra-ballet, as well as with Roussel's own comments regarding his general shift away representation after the war:

[75] *Padmâvatî*, épreuves d'imprimerie, annotations d'Albert Roussel, B-Br, Mus. 5.938, pp. 91, 123. Incidentally, it was on the same set of proofs that Roussel and Laloy created the character of Nâkamtî and give her this aria.
[76] Macdonald, '*Padmâvatî*', 95.
[77] See Roussel, *Lettres et écrits,* 55, 296. Roussel is enthusiastic about this opera project as late as 1915.





Figures 7.9*a*–*b*: From *Padmâvatî*, Act I: wordless passage labelled 'chant hindou' in publisher's proofs, crossed out by Roussel in 1918, above; refashioned into Nâkamtî's aria in final published version, below.
(*Photograph of above taken by the author, B-Br, Mus. 5.938*)

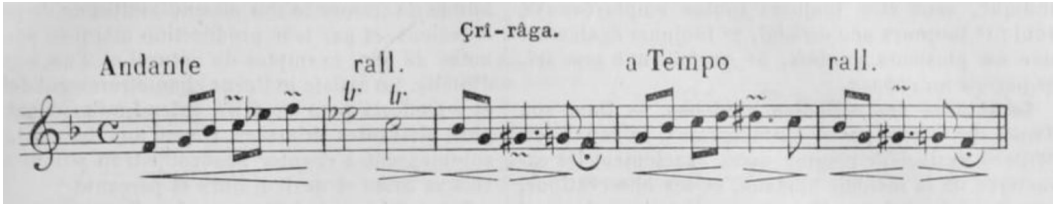


Figure 7.9*c*: A conjectural source for Nâkamtî's melodic contour in Grosset's chapter ('Inde', in *EMDC*, I, 329).

> Those four years were not lost for me. I used them to reflect upon my art. I had, like so many others, been swept up by the newest trends in musical creation. Impressionism had seduced me; my music was too bound up in external devices, in picturesque procedures, which – as I later judged – took away a part of its specific truth.[78]

We might, therefore, read Roussel's labelling and unlabelling as two illocutionary acts – the labelling, a performance of authenticity via a melodic borrowing marked by a source attribution, in direct contrast to the impressionistic obfuscation of place in the quotation which made its way into *Évocations*; and the unlabelling, a suppression of representation, allusion, and external quotation, in favour of a 'truer' method, that is, the abstracted modal structures, conceived not as an Indian 'borrowing' but as an essential, assimilable, 'ethnic' inheritance.[79]

Emmanuel. The same year that Roussel expunged his labels and finalised the score to *Padmâvatî*, Maurice Emmanuel published his theory of the 'Corps de l'harmonie' in the *Revue des études grecques* (already mentioned in Chapter 3). In that article, Emmanuel defined the essential pitch structure which he believed to be a 'manifestation of the deep instincts of the aryan race', based on his own study of Grosset's '72 Carnatic Modes' (see again, Fig. 7.6).[80] In doing so, he exemplified a philological mediation of musical data, resulting in the crystallisation of abstract, underlying structures presumed to link 'aryan' musical cultures just like verbal roots linked the Indo-European languages. According to Emmanuel, the 'Corps de l'harmonie', as defined by Aristotle, comprised the structural division of the octave into the 'consonant' perfect intervals of a fourth and fifth. This structure, Emmanuel continued, 'regulates still today the 72 modal scales of contemporary India. The old musical language has persisted there just as faithfully as their religious rites, of which music appears in any case to be an integral part…'[81] Emmanuel goes on to cite the 72 Carnatic modes. However, rather than reproducing Grosset's table or listing all of the modes, Emmanuel deconstructs them into basic structures: combinations of 'constitutive tetrachords',

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[78] Ibid., 210; 'Ces quatre années ne furent pas perdues pour moi. Je les employai à réfléchir sur mon art. J'avais, comme tant d'autres, été entraîné par les modes nouveaux de la création musicale. L'impressionnisme m'avait séduit; ma musique s'attachait trop peut-être, aux moyens extérieurs, aux procédés pittoresques qui – j'en ai jugé ainsi plus tard – lui enlevaient une part de sa vérité spécifique.'

[79] A parallel might be posited here between Roussel's rhetorical practice and that of Stravinsky, who denied his reliance on folk melodic transcription in *Le Sacre du printemps*, despite evidence to the contrary. Stravinsky appealed to a notion of 'unconscious "folk" memory' (quoted in Taruskin, 'Russian Folk Melodies in *The Rite of Spring*', 503) – which might be likened to Roussel's ideas of 'ethnic' inheritance.

[80] Emmanuel, 'Le Corps de l'harmonie d'après Aristote', 189; 'une manifestation des instincts profonds de la race aryenne'.

[81] Ibid., 184; 'Il régit encore les 72 échelles modales de l'Inde contemporaine. La vieille langue musicale s'y est perpétuée aussi fidèlement que les rites religieux, dont elle semble d'ailleurs, faire partie intégrante...'

organised depending on the placement of semitones within them, and generating six basic types. These types are organised according to 'orientation' (descending, ascending, and neutral) – a classificatory criterion which is based not on Grosset's article but rather on Emmanuel's own analysis, extrapolating a concept from his theorisation of ancient Greek modes. Each of these six tetrachordal types can be combined with each of the others, placed a perfect fifth above, thereby filling the space of an octave within the structure of the 'corps de l'harmonie' and generating thirty-six unique modes. The 'Hindus', Emmanuel continues, go even further, admitting the possibility of a sharp fourth into the lower tetrachord, thereby doubling the number of unique modes to seventy-two (Fig. 7.10*a*). Having theorised the modes according to a generative system, Emmanuel sets about comparison: 'all of the Hellenic modal scales, in both the diatonic and chromatic genera, can be found in the table of Hindu modes'.[82] To illustrate the point, he lists the Greek modes, labelling each tetrachordal building block with a digit corresponding to his analysis of the Indian modes (Fig. 7.10*b*).[83] As his coup de grâce, Emmanuel cites the Delphic hymn, excavated by Théophile Homolle in 1893 and set to music by Théodore Reinach* and Fauré, to show how the tetrachords of 'Hindu' modes remain just as they were 'practised by the Greeks, over two thousand years ago'.[84] In Emmanuel's conception, the relationship between the Indian modes and modern music is not so much 'ancestral' as 'familial', preserving something of the essence of a common source: 'the aryans of India,' Emmanuel concludes, 'seem to have made it their job to inventory and develop, to this day, the forces that lie in the ancient scales'.[85]

Emmanuel's quasi-philological comparativism is a pivotal step in the 'abstraction' of the modes: isolating these pitch classes from their source, Emmanuel deconstructed them into base structures which could be applied as a tool of comparative analysis. However, as usual, analysis alone was not Emmanuel's end goal. Toward the end of his article, Emmanuel turns increasingly toward the artistic and creative potential generated by what he called this 'modal mine of inexhaustible richness'.[86] Like Bourgault-Ducoudray, Emmanuel contrasted the potential of modality with the 'disorder' of chromaticism (making sure to distinguish between

[82] Ibid., 187; 'Toutes les échelles modales helléniques, dans les deux genres diatonique et chromatique, se retrouvent dans le tableau des modes hindous'.
[83] Emmanuel, like Bourgault, uses ancient Greek modal nomenclature (following Gevaert) which differs from the medieval nomenclature which has become modern usage; see Chapter 2, note **Error! Bookmark not defined.**.
[84] Ibid., 188; 'l'Harmonie hindoue de la forme...a été pratiquée par les Grecs, il y a plus de deux mille ans'.
[85] Ibid., 189; 'Les Aryens de l'Inde semblent avoir pris à tâche d'inventorier et de développer, de nos jours même, les forces latentes de antiques séchelles [sic].'
[86] Ibid., 184; 'mine modale d'une inépuisable richesse'.

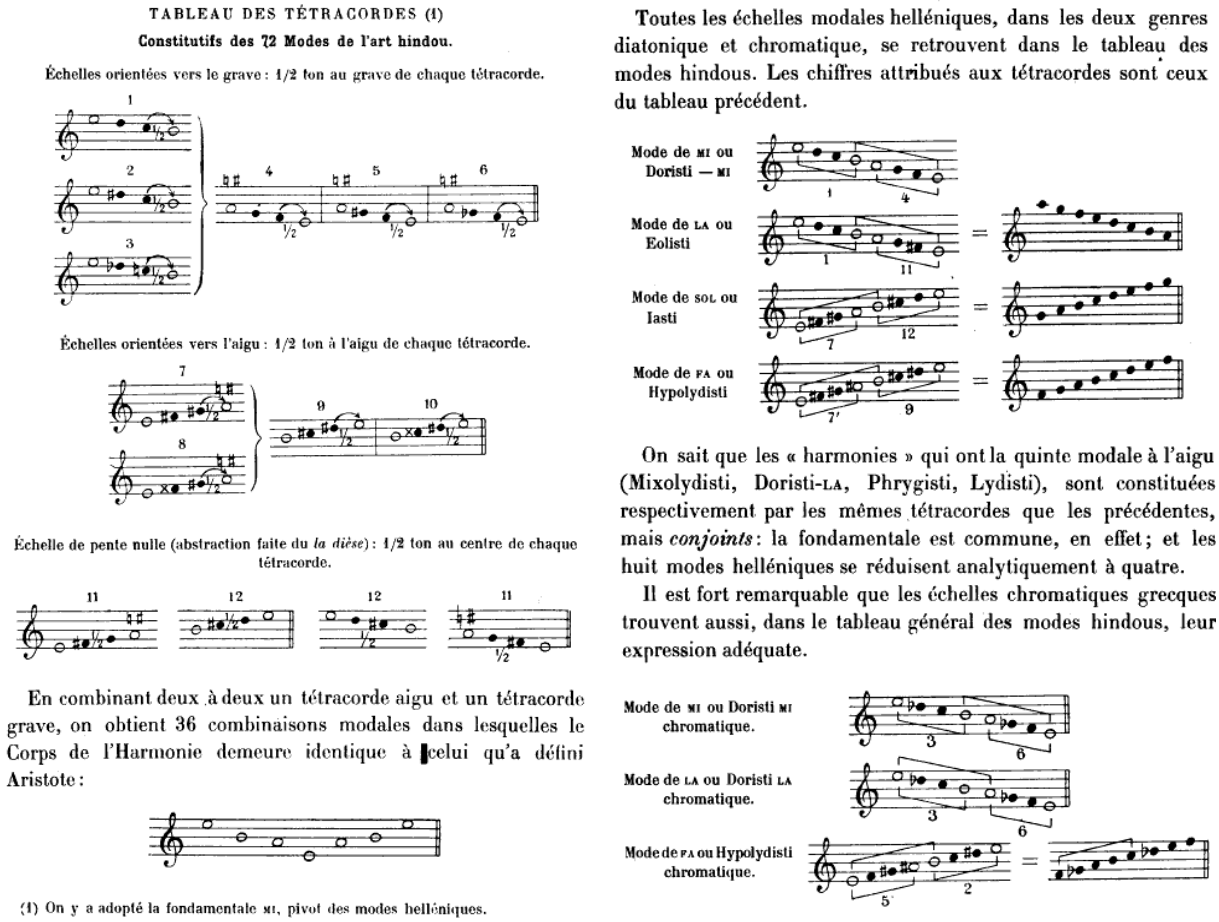


TABLEAU DES TÉTRACORDES (1)

Constitutifs des 72 Modes de l'art hindou.

Échelles orientées vers le grave : 1/2 ton au grave de chaque tétracorde.

Échelles orientées vers l'aigu : 1/2 ton à l'aigu de chaque tétracorde.

Échelle de pente nulle (abstraction faite du *la dièse*) : 1/2 ton au centre de chaque tétracorde.

En combinant deux à deux un tétracorde aigu et un tétracorde grave, on obtient 36 combinaisons modales dans lesquelles le Corps de l'Harmonie demeure identique à celui qu'a défini Aristote :

(1) On y a adopté la fondamentale MI, pivot des modes helléniques.

Toutes les échelles modales helléniques, dans les deux genres diatonique et chromatique, se retrouvent dans le tableau des modes hindous. Les chiffres attribués aux tétracordes sont ceux du tableau précédent.

Mode de MI ou Doristi — MI

Mode de LA ou Eolisti

Mode de SOL ou Iasti

Mode de FA ou Hypolydisti

On sait que les « harmonies » qui ont la quinte modale à l'aigu (Mixolydisti, Doristi-LA, Phrygisti, Lydisti), sont constituées respectivement par les mêmes tétracordes que les précédentes, mais *conjoints* : la fondamentale est commune, en effet ; et les huit modes helléniques se réduisent analytiquement à quatre.

Il est fort remarquable que les échelles chromatiques grecques trouvent aussi, dans le tableau général des modes hindous, leur expression adéquate.

Mode de MI ou Doristi MI chromatique.

Mode de LA ou Doristi LA chromatique.

Mode de FA ou Hypolydisti chromatique.

Figures 7.10*a–b*: Emmanuel distils Grosset's 72 scales into a generative system, left, and compares the results with ancient Greek modes, right, in 'Le Corps de l'harmonie d'après Aristote', pp. 185, 187.

the ancient heptatonic 'chromatic' genus and the modern chromaticism of twelve semitones). 'The Hindu bard who still resounds the Harmonies with which Aeschylus and Sophocles shook their spectators, possesses resources of which our artists…so wrongly deprive themselves.'[87]

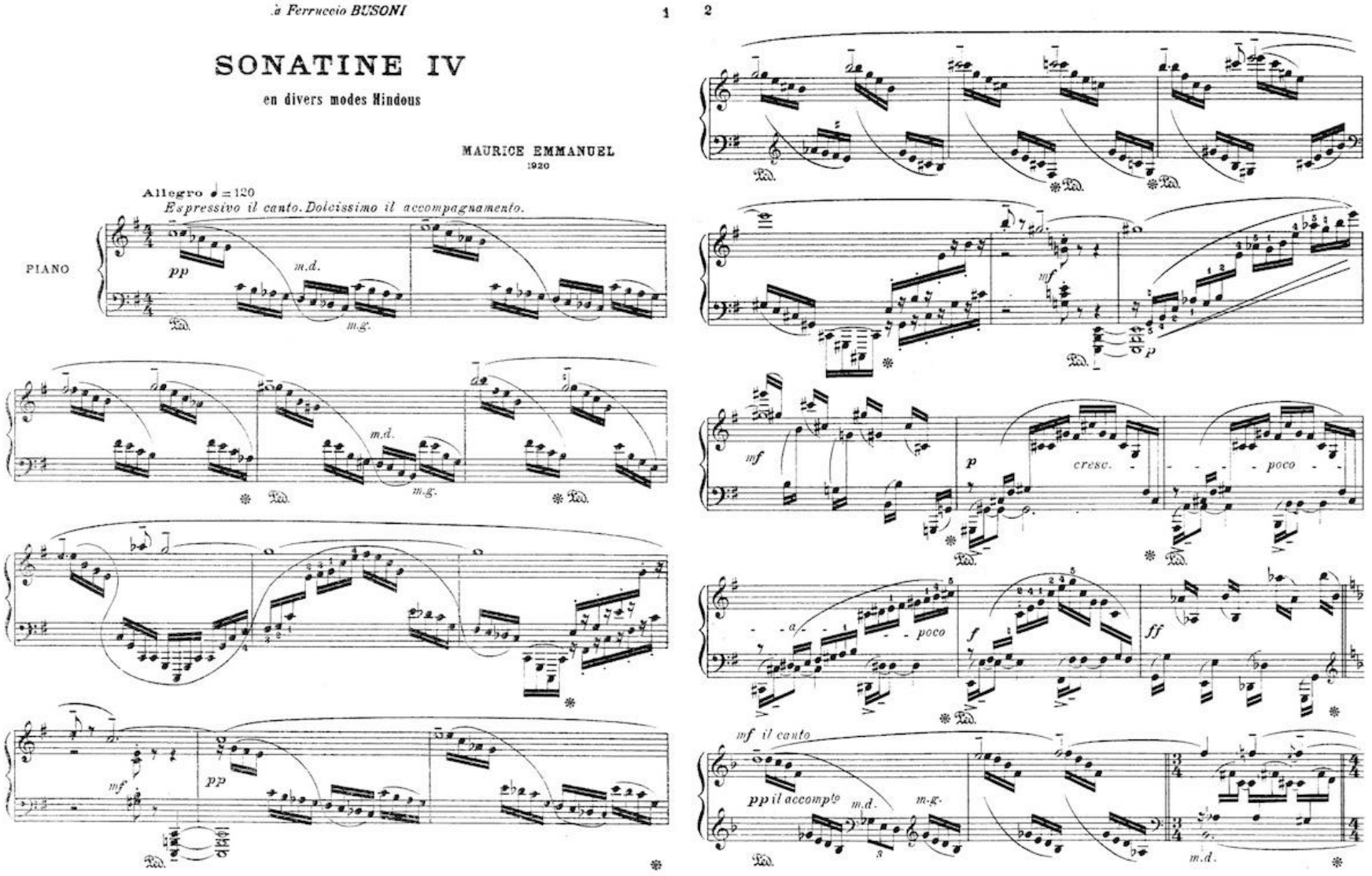
Emmanuel took up his own call to arms the following year, when he composed his *Sonatine IV sur des modes hindous* (1920) – executing (like Roussel) a superposition of Indo-Europeanist and French classicist forms. Conceptually, the use of Indian modality represents a short hop from his use of 'folk modality' in his first and third sonatinas (1893, 1920); nevertheless, this sonatina may represent the first instance of Indian modality being deployed

[87] Ibid., 189; 'L'aède hindou qui fait vibrer encore les Harmonies par lesquelles Eschyle et Sophocle secouaient les spectateurs de leurs drames, possède des ressources dont nos artistes...ont le grand tort de se priver'.

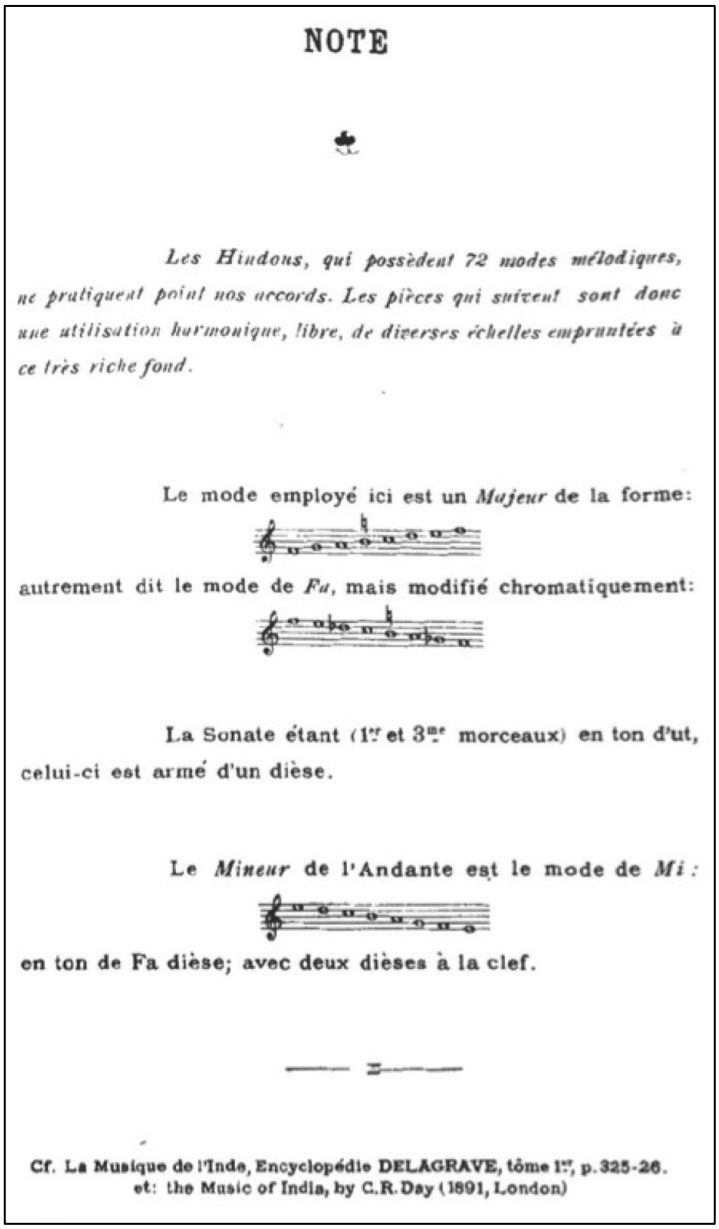
within a French instrumental form with no corresponding dramatic or programmatic content. Emmanuel's use of Indian modes also harmonic – a practice which he clearly inherited from Bourgault, had mentioned in 'Le Corps de l'harmonie', and would continue to tout in his better-known 1928 article, 'La Polymodie'.[88] Emmanuel shifts from one mode to the next, rather kaleidoscopically, throughout the sonatina: in the first movement, for example, the opening twenty bars strictly adhere to the mode called 'Kamavardini' on C. Then, he introduces a modulation (bars 21–3), weaving new pitches in and old ones out until he can restate a variation of the opening theme on D. The short, development-like section features additional chromatic encroachments, until the music is restored to the opening mode, on C, in the coda. Even within sections on a single mode, Emmanuel deftly manoeuvres between key areas: in the opening passage, Emmanuel uses A♭/G♯ as a pivot between local tonics on C and E. Thus, Emmanuel uses the Indian modes to organise a compact sonata form framework, while creating a productive tension between the modes as structures and local tonicisations, chromaticisms, and modulations (Figs. 7.11*a*–*b*).[89]

Once again, the imprint of philology on composition spilled over the staves into the paratexts. In the short preface to the published score, Emmanuel précised his modal approach: 'The Hindus, who possess 72 melodic modes, don't use anything like our chords. The movements which follow are thus a free harmonic use of various scales borrowed from this very rich context.'[90] He then printed in staff notation the modes he used, defining them not by their Indian names but in comparison to the familiar major mode, with adjusted scale degrees – abstracting these modes from their Indian context into the 'language' of western practice. At the bottom of the page, Emmanuel cited the pages from Lavignac's *Encyclopédie* where the modes are tabulated by Grosset, as well as the volume by C. R. Day from which Grosset sourced the modes in the first place (Fig. 7.11*c*).

[88] See Emmanuel, 'La Polymodie', 210–11.
[89] A more thorough analysis of the sonatina can be found in Carlson, 'Maurice Emmanuel and the Six Sonatines for Piano', 64–78; however, analysing the Sonata in terms of modes raises interpretive ambiguities, depending on whether one chooses to interpret the modes in relation to the fixed 'tonic', C, as they are given in Grosset, or whether one chooses to read them in transposition, in relation to Emmanuel's local key area.
[90] Emmanuel, *Sonatine IV sur des modes hindous*, 'Note'; 'Les Hindous, qui possèdent 72 modes mélodiques, ne pratiquent point nos accords. Les pièces qui suivent sont donc une utilisation harmonique, libre, de diverses échelles empruntées à ce très riche fond.'



Figures 7.11*a*–*b*: Opening pages of Emmanuel's *Sonatine IV*.



NOTE

Les Hindous, qui possèdent 72 modes mélodiques, ne pratiquent point nos accords. Les pièces qui suivent sont donc une utilisation harmonique, libre, de diverses échelles empruntées à ce très riche fond.

Le mode employé ici est un *Majeur* de la forme:

autrement dit le mode de *Fa*, mais modifié chromatiquement:

La Sonate étant (1er et 3me morceaux) en ton d'ut, celui-ci est armé d'un dièse.

Le *Mineur* de l'Andante est le mode de *Mi*:

en ton de Fa dièse; avec deux dièses à la clef.

Cf. La Musique de l'Inde, Encyclopédie DELAGRAVE, tôme 1er, p. 325-26.
et: the Music of India, by C.R. Day (1891, London)

Figure 7.11*c*: Emmanuel's prefatory explanation of the modes in *Sonatine IV*.

And yet, with paratexts there is performance, and a closer inspection reveals what lurked behind Emmanuel's display of Indian modality. Emmanuel, like Bourgault and others, struggled to reconcile his identities as scholar and artist, especially since his appointment to the Conservatoire. In the years following his composition of the sonatina, he recounted his identity crisis to Charles Koechlin, who, like Emmanuel, had a degree of scholarly ambition, and who had also been an ardent pupil of Bourgault:

> You can imagine my own horror, and how they overwhelm me with shame, in treating me as a musicologist and as a professor! I've had it with people who are nothing but scholars, who believe themselves artists, imagining that by rummaging through

> archives, one makes a work of art. I am a musician who is forced to be a professor, but for whom history is a reservoir of beautiful and living works, not an old drawer full of obsolete objects![91]

Two years later, he wrote again: 'I've made it to sixty years old, and what have I got to show for it but this label of "savant" that follows me everywhere; musicologist; scholar; hellenist etc.'[92] In the context of this frustration, still felt a decade later, Emmanuel confesses the truth to Koechlin about his *Sonatine*: 'Sonatina 4 in chromatic hypolydisti; but so as not to be seen as a fossilised scholar, I dressed it up with the label, "Hindu modes"; to be sure, the scale is one of the 72 Hindu (theoretical) modes.'[93] And so, it turns out, Emmanuel was leveraging Indian modes in order to deal with his own anxieties: if Greek modes were coming to appear fusty (recalling Saint-Saëns's concerns about public tolerance for overly pedantic musical hellenism), Emmanuel found a way to repackage them as fresh. His announcement of Indian modal authenticity was thus in fact a suppression of classicism, and a performance of 'exoticism'. Collapsing together India and Greece, Emmanuel's gesture reminds us once more of India's liminality between 'past' and 'other' in the French imaginary: in this instance, Emmanuel exploited a valence of exoticism to mask his affinity for history, and Indian modes are at the crossroads.

The 1920s saw a modest spread in the use of the Indian modes. If Emmanuel mainly stuck to his beloved Greek modes following his sonatina, Roussel continued to experiment with Indian modes in a smattering of works, of which only 'Krishna', from *Joueurs de flûte*, Op. 27 (1924), is programmatically marked as 'Indian'. Other instances include an extended harp passage in *La Naissance de la lyre* (his Grecian operatic follow-up to *Padmâvatî* in collaboration with Théodore Reinach, composed in 1922–3);[94] *Sonata No. 2* for violin and piano (Op. 24, 1924); and 'Réponse d'une épouse sage' (from *Deux poèmes chinois*, Op. 35, 1927).

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[91] Emmanuel, *Lettres choisies*, 357; 'Vous devinez l'horreur que j'en ai moi-même, et de quelle disgrâce on m'accable en me traitant de musicologue et de professeur! J'ai la flemme des gens qui, n'étant qu'érudits, se croient des artistes, et s'imaginent qu'à gratter des archives, on fait oeuvre d'art. Je suis un musicien obligé de professer, mais pour qui l'histoire est un répertoire d'oeuvres belles et vivantes, et non un vieux tiroir plein d'objets désuets!'

[92] Ibid., 389; 'Et j'ai atteint la soixantaine, avec pour toute réclame, mon étiquette de "savant" dans le dos; musicologue; érudit; helléniste etc.'

[93] Ibid., 533; 'Sonatine IV en hypolydisti chromatique; mais pour ne point paraître un érudit en os, je l'ai affublée de l'étiquette "modes hindous"; en effet cette échelle est l'un des 72 modes hindous, théoriques.'

[94] Roussel, *La Naissance de la lyre*, 74–5. Corbier identifies this passage as an 'exotic scale' invented by Roussel for the sake of an 'archaic colour' (*La Naissance de la lyre* d'Albert Roussel et Théodore Reinach', 340); but I believe it is in fact a Carnatic mode.

Tournemire & Dupré. Meanwhile, Emmanuel's friend, Charles Tournemire (1870–1939), became one of the most fervent explorers of the Carnatic modes by the end of the decade. Tournemire had already dabbled in Greek modes before the war. He showcased, for example, the more rarified 'chromatic' genus in his opera, *Les Dieux sont morts* – another dramatic staging of Christianity's triumph over paganism – composed in 1910–12.[95] However, when the opera was premiered after the war, it was widely received as out-of-date;[96] and while one sympathetic critic wrote encouragingly that 'M. Tournemire did not attempt the useless trick of establishing, in this day and age, an entire work based on ancient modes,' the implication was clear: that Greek modes, alongside pseudo-antique harps and flutes, had, by the 1920s, become hackneyed, just as Emmanuel had realised in publishing his sonatina.[97] However, Tournemire's interest in 'Hindu modes' went beyond Emmanuel's use of them as surrogates for Greek modality. Perhaps part of their initial attraction was their resonance with Tournemire's own fascination with 'world religion' and consumption of theology and mythology, dating back to his associations with the Symbolists and the Librairie Indépendante at the turn of the century.[98] Whatever the case, Tournemire began concertedly integrating the Carnatic modes into his large cycles for organ and piano, such as *L'orgue mystique*, Opp. 55–7 (1927–32), *12 Préludes-poèmes*, Op. 58 (1931–2), and *7 chorals-poèmes*, Op. 67 (1935).[99] Each of these works bear explicit Catholic programmes, nothing relating to India; the modes thus served an abstracted and artistically progressive purpose.[100] As Tournemire wrote of his *Préludes-poèmes*: 'A rather considerable work; new sonorities, the use of numerous Hindu modes, make it into a special collection. This is piano music on a grand scale.'[101] Rather than adhering to single modes for prolonged periods, Tournemire used

[95] See, e.g., Pan's flute solo (Tournemire, *Les Dieux sont Morts*, orchestral score, 88) – and note the archaeological performance of Tournemire's organological footnote regarding Pan's flute: 'Les anciens ne possédaient pas la flûte – ils se servaient de la Clarinette ou du Hautbois. – "La flûte dite de Pan ne se peut employer' [sic – the footnote, which appears only in the orchestral (and not the vocal) score, cuts off without a closing quotation mark].
[96] The opera's reception is discussed in Schloesser, *Jazz-Age Catholicism*, 294–7.
[97] Raymond Charpentier, *Comœdia* (18 March 1924), 1; 'M. Tournemire n'a pas tenté non plus l'inutile gageure d'établir, de nos jours, un ouvrage entier sur les modes antiques.' Also quoted in Schloesser, *Jazz-Age Catholicism*, 299.
[98] On Tournemire's interest in 'world' religion, see Ianco, *Charles Tournemire, ou, le mythe de Tristan*, 46–9; and Schloesser, *Jazz-Age Catholicism*, 289–92.
[99] For analytical studies highlighting Tournemire's use of the Carnatic modes in these works, see: Tikker, 'La *Symphonie-Choral* pour orgue de Charles Tournemire'; and Li, '*Douze Préludes-Poèmes*, Op. 58 by Charles Tournemire', ch. 4.
[100] The *Préludes-poèmes* were published only in 1970, without their theological titles. These can be found attached to the score manuscript (F-Pn, Ms. 18945).
[101] Quoted in Ianco, *Charles Tournemire, ou, le mythe de Tristan*, 74; 'Œuvre assez considérable, des sonorités nouvelles, l'emploi de nombreux modes hindous en font un ensemble spécial. C'est du grand piano.'

the modes more changeably, as in the two modes juxtaposed in the opening of his first prélude-poème (Fig. 7.12).

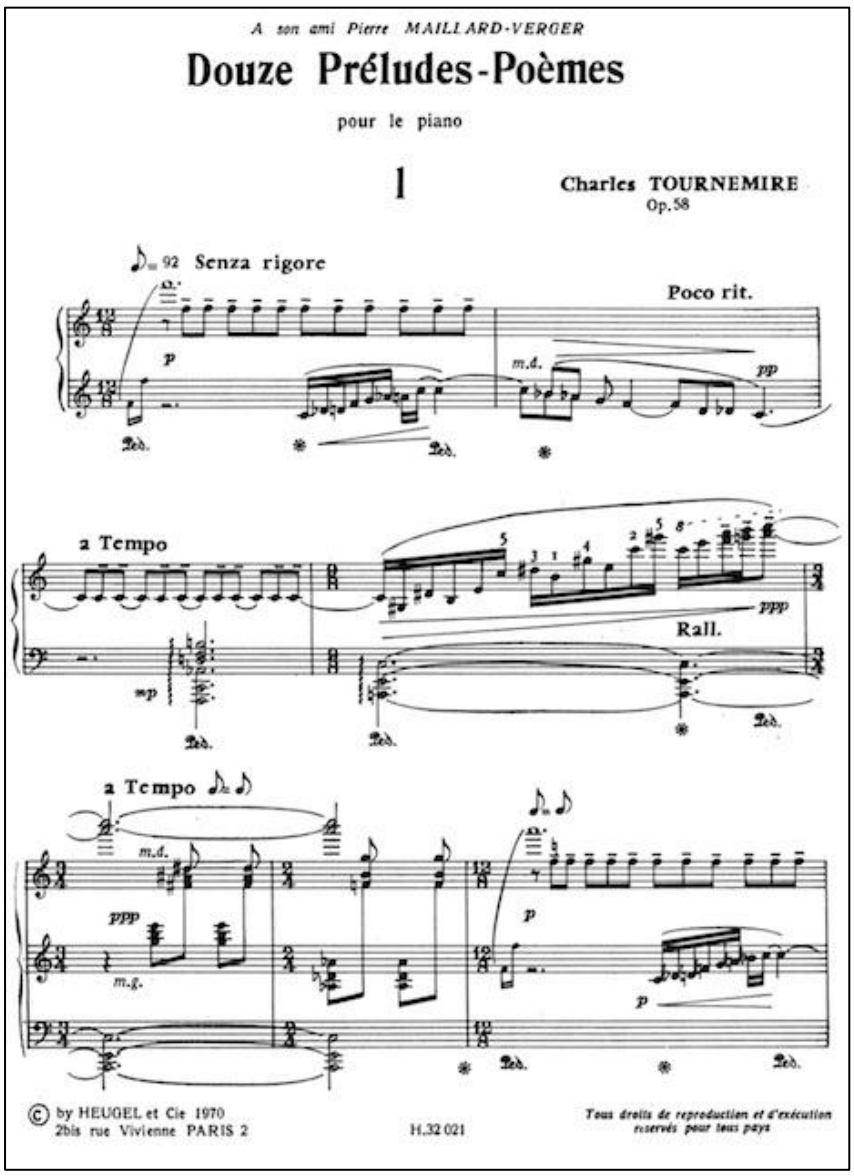

Figure 7.12: From Tournemire, *Douze préludes-poèmes*, No. 1, 'Naissance de l'homme', opening with two 'Carnatic modes' juxtaposed in the left hand.

A decisive development in the abstraction of Indian modes came from the organ loft, where the scales were assimilated to an improvisational tradition that had already integrated another form of 'modality' by way of plainchant. Marcel Dupré (1886–1971) published his *Traité d'improvisation à l'orgue* in 1925 (the year before he became organ professor at the Conservatoire); Tournemire followed on in 1936 with his own *Précis d'exécution de registration et d'improvisation à l'orgue*. In these treatises, both Dupré and Tournemire proposed the use of the Carnatic modes as source materials for improvisation. In Dupré's

treatise, 'Hindu' modes are discussed in the section on 'Theme', conceived as the starting point for any improvisation. Improvisers, he explains, have two options: they either create their own theme, or, exceptionally, they select an existing theme. In the former case, the improviser is served by a familiarity with modes as 'sources of melody'.[102] Dupré sets out therefore to 'classify' the modes in 'as natural an order as possible so that they are easy to remember'.[103] Beginning with the major and minor scales, Dupré proceeds to incorporate ancient Greek diatonic modes, plainchant modes, and then finally a range of 'exotic modes', with which the Indian modes are grouped. This ordering marks an important boundary between the Indian modes conceived as artefacts of music history and as germs of creative potential. Unlike the historiographical accounts, in which we have encountered Indian modes framed among 'early' musics, in Dupré's volume, Indian music – 'the most interesting and the most complete of exotic musics'[104] – arrives at the end, cast as an advanced element of a French organist's musical formation. Dupré's discussion demonstrates the extent to which he prized Indian modes – not for notions of historical or 'ethnic' meaning they might contain (as they were interpreted by philologists), or even for dramatic settings they might evoke (as they were used by pre-War composers) – but rather for their supposedly abstract musical qualities. The modes thus represent not an early-stage development in musical evolution but rather a late-stage development in the training of an organist. Nevertheless, there remains a trace of philological mediation in the way that Dupré, like Emmanuel, does not list all 72 modes but instead explains the structural principles by which they can be derived. Finally, Dupré, echoes the wisdom of modal extrapolation for harmonisation: 'the student will then see what benefit can be drawn from the assimilation of a certain number of these modes, from which he can first practice establishing melodies, so as to try to apply their natural harmony to them afterward, using only the notes of the mode.'[105] Dupré then goes on to list a variety of 'Gypsy' and 'Arabian' modes which are, he claims, 'derived from Hindu modes', before listing pentatonic – 'Incomplete' – modes; perhaps it was in response to this rogue claim of derivation that Emmanuel, otherwise complimentary of Dupré's *Traité*, saw fit to post him a

[102] Dupré, *Traité d'improvisation à l'orgue*, 28; 'sources de la Mélodie'
[103] Ibid., 28; 'les classant dans un ordre aussi naturel que possible, et facile à retenir.'
[104] Ibid., 31; 'La plus intéressante et la plus complète des Musiques exotiques est la Musique Hindoue'.
[105] Ibid; 'L'élève verra donc quel bénéfice il peut tirer de l'assimilation d'un certain nombre de ces Modes, sur lesquels il pourra d'abord s'exercer à établir des mélodies pour essayer ensuite de leur appliquer leur harmonie naturelle, sans sortir des notes du Mode'.

clipping of 'Le Corps de l'harmonie', which he described as his study of 'the Hindu modes compared to the Greek modes'.[106]

Tournemire's *Précis* complements Dupré's *Traité* nicely. The discussion of Indian modes comes only at the very end of the book, conceived, as with Dupré, as an advanced technique in the modern organist's toolkit.[107] Tournemire shares Dupré's desire to harness the creative potential of the modes, and even explicitly suggests integrating the Indian modes into classical organ forms, alluding to the ways in which improvisational practices may bleed into compositional practices: 'Before concluding all these reflections on the Art of Organ improvisation, we will note here some ancient "scales" upon which an ingenious improviser can rely, in order to build, as they wish, at once: Chorales, Fantasies, Sonatas, etc.'[108] Tournemire does not break the modes down into their generative structures as Dupré does; instead, he hand-selects twenty-eight of the seventy-two Carnatic modes for inclusion (Fig. 7.13).[109] In shifting from construing Indian modes as essentially 'Indo-European' (as Fétis, Emmanuel, and Grosset did) to seeing them as a progressive expansion of musical modality beyond tonal systems, Dupré and Tournemire (perhaps despite themselves) situate the Indian modes chronologically more closely to where they were 'invented' as musical devices: that is, not at the origin of an Indo-Europeanist music history threading from 'ancient India' to 'modern Europe', but rather as elements of a lexicon which only became reified as such in nineteenth-/twentieth-century France. In other words, they do not suggest that the Indian modes should interest French musicians insofar as they might be 'data' tied to a 'racially' relevant history; rather, they present them among a gallery of resources to expand the musical lexicon of modern French composers and improvisers. They thus detach the products of a philologically mediated approach to music history from the broader philological process of filiation, and reconfigure those products for avant-garde, 'purely musical' ends. Ultimately, however, the structural abstraction and assimilation are themselves proof of philology's thorough mediation. Rather than melodies borrowed verbatim in the manner of a set-piece,

[106] Emmanuel, *Lettres choisies*, 414; 'Je vous enverrai une courte étude faite il y a quelques années (à la demande des *Études grecques*) sur les modes hindous comparés aux modes helléniques.'
[107] Tournemire, *Précis*, 116.
[108] Ibid.; 'Avant que de clore toutes ces réflexions sur l'Art de l'improvisation à l'Orgue, nous allons consigner ici quelques "échelles" antiques sur lesquelles l'improvisateur ingénieux pourra s'appuyer pour édifier, au gré de sa fantaisie, séance tenante: Chorals, Fantaisies, Sonates, etc.'
[109] Tournemire's selection of modes for inclusion does not appear systematic; moreover, he was sloppy about this process: of the 28 modes, two pairs are duplicated. Judging by his manuscript notes, these duplications were introduced during two retranscriptions of the modes – first, from Grosset's table into his notes, and second, from his notes into the manuscript for the *Précis*; see F-Pn, RES VM DOS-227.

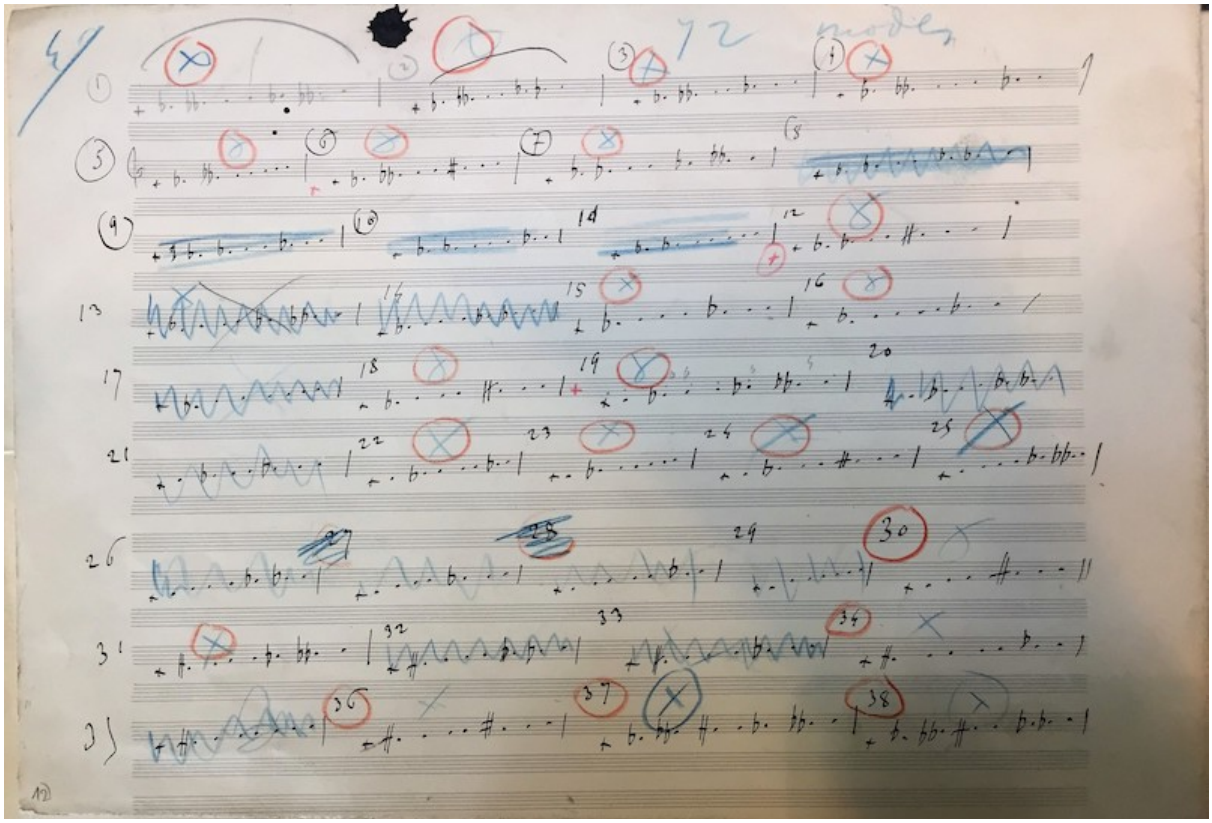

Figure 7.13: Tournemire's notes for his *Précis*, for which he selected modes for inclusion. (*Photographed by the author*, *F-Pn, Ms. 26552*)

modes, abstracted and reconstituted through generations of philological processing, infiltrate from within, assimilating into and embodying existing forms and structures until they are naturalised as 'French'.

Conclusion.

This chapter has charted a trajectory over three broad and overlapping transitional stages: Indian melodies, which began as adornments of 'couleur locale' in theatrical representations of India, increasingly cede to the use of Indian modes; these modes, mediated by philological study, are systematised, dissociated from contexts of Indian representation, and brought to bear in instrumental forms; and finally, by the 1930s, they are presented in pedagogical manuals as raw musical materials for organ improvisation – drawing Indian modes into the seemingly unlikely site of the Catholic church. I have suggested that, on the one hand, this trajectory represents an increasing assimilation of a musical resource presumed (in some contexts) to bear an 'ethnic' connection to French identity, conceived musically or 'racially'; but also, a path toward the 'abstraction' of Indian modes from Indian, or 'Indo-European', contexts, and toward the exploitation of modal sets as raw material for the sake of artistic

novelty. Perhaps the keen interest of organists in Indian modes should not surprise us, eclectic though it may appear. Church musicians had long been proactive in the advocacy of 'modality', at least since Niedermeyer and d'Ortigue's *Traité de l'accompagnement du plain-chant* three-quarters of a century earlier, and largely upheld in more recent works like Amédée Gastoué's *Traité d'harmonisation du chant grégorien* (1910) and Emmanuel's *Traité de l'accompagnement modal des psaumes* (1913).[110]

The spread of Indian modes throughout the 1920s and '30s, led by the composers discussed above and pursued further by (among others) Jehan Alain (student of Dupré and Emmanuel) and André Jolivet in the '40s, has perhaps been obscured in the historiography of this period in France, dominated by 'Les Six' and 'neoclassicism'.[111] In the climate of the 1920s, composers like Tournemire kept largely independent of organised artistic movements, and were often disparaged as conservative. (Nor has he benefited from the widespread classification of their music as 'religious', and thus marginalised from modernist music historiography – it is telling in this regard that most scholarship on Tournemire, for example, has been carried out by theologians or organ journals.[112]) If by the 1930s composing with Indian modes was not unheard of, neither was it mainstream, and these modal techniques remained peripheral to 'official' compositional pedagogy – sanctioned perhaps in organ or history class, but not in harmony and fugue.

This state of affairs is neatly illustrated by an incident occurring around the 1934 Prix de Rome competition. The set text for that year's cantata was *La Légende de Roukmani* by Claude Orly, a 'fantaisie lyrique' in a 'mysterious Hindu forest with giant flowers' and with 'Vishnou-Krishna' among its characters.[113] Two of the competitors that year, Eugène Bozza and Henriette Roget, had heard from Alfred Bachelet (an *académicien*, therefore a Prix de Rome insider) that the libretto had a 'Hindu subject'. Accordingly, in advance of their

[110] On these treatises, see Gonnard, *La Musique modale en France de Berlioz à Debussy*, 50–3; 70–2. For a study of how plainchant accompaniment traditions fed into modal experimentation in early twentieth-century French music, published near the completion of this thesis, see Leßmann, '"L'anachronisme le plus musical"'.
[111] See also the case of British composer John Foulds, who was active in Paris during the 1920s. Foulds deployed the 'Carnatic modes' in his six *Essais sur des modes* for piano, published in Paris in 1927. According to Nalini Ghuman, Foulds's partner, Maud MacCarthy, gave popular lectures on Indian music theory to Parisian audiences (Ghuman, *Resonances of the Raj*, 271–4). On Alain's musical inheritance from Emmanuel, see Corbier, 'Modes grecs et rythmique antique'.
[112] See, e.g., Schloesser, *Jazz-Age Catholicism*, and Donelson and Schloesser, eds., *Mystic Modern*; alongside theological scholarship, there
[113] Orly, *La Légende de Roukmani*, 1; 'Mystérieuse forêt indoue aux fleurs géantes'.

sequestration at Fontainebleau, they sought reference materials from Emmanuel regarding Indian music, which the latter happily provided in the form of C. R. Day's volume and a copy of his own 'Le Corps de l'harmonie'. However, once Bozza was awarded the Prix, the fact that he had received a tip-off from Bachelet and reference materials from Emmanuel raised concerns of fairness, fomented mainly by Henry Malherbe in his feuilleton for *Le Temps*.[114] The ensuing press scandal instigated an enquiry by the Institut which ultimately found all parties (save Malherbe) blameless.[115] For our purposes, there are three interesting takeaways from this affair: first, by 1934, it appeared natural that, confronted with an Indian topic, a composer should seek out apposite musical materials; and second, Emmanuel was viewed as the person most likely to help. According to Emmanuel's deposition, Bozza complained to him of the subject matter and stated that he 'did not feel like making up exoticism'; Emmanuel urged him not to, providing him instead with information on the theoretical Carnatic modes and their relationship to Greek modes. Third, Bozza, as well as the peers to whom he loaned these resources, did not end up integrating the materials into his cantata, claiming to find them 'musically unusable'.[116] Emmanuel, for his part, affirmed that the modal resources he gave Bozza would have been of no assistance in recreating '<u>musical</u> Hindu music' in any case; in other words, even though he had managed to wield certain among these modes in his sonatina, Emmanuel viewed the modes as unsuitable for evoking a 'Hindu' programmatic topic.[117] It is clear, therefore, that the modes were framed not as 'exoticist', but rather as antithetical to 'exoticism'; and furthermore that even the most precocious Conservatoire composers felt uncomfortable wielding them without additional training. (Perhaps the incident haunted Bozza: in the 1970s, he composed dozens of *Études sur des modes karnatiques* for various wind and brass instruments.[118])

Greater public advocacy for 'modes hindous' would come later in the 1930s, when Olivier Messiaen made a point of promoting them in his journalism: the use of Indian modes became

[114] Malherbe, 'Les irrégularités du dernier concours de Rome', *Le Temps* (12/ix/1934).
[115] A file on the affair, including summaries of the depositions of Emmanuel and the others involved from which the information in this paragraph is drawn, is preserved at F-Pa, F[21] 5351/11.
[116] Quoted in Maurice Emmanuel's testimony, F-Pa, F[21] 5351/11; 'ils ne sont pas, musicalement, utilisables'. Bozza's cantata is preserved at F-Pmhb, Msc 457.
[117] Ibid.; 'les ouvrages cités plus haut ne pouvaient en aucune façon servir à confectionner de la musique hindoue <u>musicale</u>.'
[118] See also Jacques Charpentier's monumental cycle of seventy-two *Études karnatiques* for piano, published in twelve volumes (1960–98).

a virtue he praised in the music of Roussel, Migot, Tournemire, and Langlais.[119] Messiaen even ascribed 'modal spice of Greek or Indian origins' to none other than the 'Chanson des cinq filles d'Orlamonde' in Dukas's *Ariane et Barbe-Bleue* – playing into (perhaps unwittingly) the longstanding reception of this work as containing 'Indo-European' elements, and demonstrating how Indian modes had practically become, for Messiaen, analytical shorthand.[120] But what about in his own musical practice? I have found no evidence of the Carnatic modes in Messiaen's compositions, including his earlier work, despite his clear enthusiasm for them not only in his criticism but also later, in his pedagogy. However, rather than limiting our search to the exact heptatonic modes themselves as objects, we might consider how Messiaen may have adopted the philologically mediated approach to the modes as a musical process. After all, whether by way of his organ professor, Dupré, or his history professor, Emmanuel, Messiaen would have first encountered the modes not as 72 readymade objects, but rather as a generative system of combinable tetrachords, from which all the potential modes could be realised.[121] One might, here, draw a connection between the structural procedure which give rise to the Carnatic modes, and the way Messiaen generated his own modal system, the 'modes of limited transposition'. There is unfortunately no apparent trace in Messiaen's sketches of how he began developing his modes while still a student at the Conservatoire – a remarkable achievement, given how thoroughly he was already employing these modes in early works like his *Préludes* (1930–1). Musicologists have most often, with good reason, viewed the 'modes of limited transposition' as extrapolations of the whole-tone and octatonic scales – whose own respective histories have been the subject of considerable attention – a narrative which Messiaen endorsed by incorporating those scales into his system and citing their previous use.[122] It seems plausible that, if these modes provided the starting materials, perhaps the quasi-philological approach – that is, the search for structural principles by breaking down the modes into component parts, by which to then reverse and re-engineer modal variety, as Emmanuel and Dupré both did – fed into

[119] Messiaen, 'Billet parisien: Un Festival Roussel' (1937), in Broad, *Olivier Messiaen: Journalism*, 33; 'Le *Premier Livre d'orgue* de Georges Migot' (1938), in ibid., 22; 'L'Orgue' (1938), in ibid., 56–7; 'Chronique de Paris' (March 1937), in ibid., 26. It is not always clear that what Messiaen interprets as Indian modality was intended as such by the composer.
[120] Messiaen, '*Ariane et Barbe-Bleue* de Paul Dukas' (1936), in Broad, *Olivier Messiaen: Journalism*, 17. See my discussion of Dukas's *Ariane et Barbe-Bleue* in Chapter 6, above.
[121] F-Pn, fonds Messiaen, RES VMA Ms. 1490, 69.
[122] One narrative is told in Taruskin, *Stravinsky and the Russian Traditions*, esp. ch. 4. Messiaen effectively substantiates the Russian-centric narrative by citing octatonic examples from Rimsky-Korsakov and Scriabin in *Technique de mon langage musical* (52). Another, French-centred, history is told by Sylvia Kahan, who suggests that Edmond de Polignac's own 'discovery' of octatonicism was likely motivated by Bourgault (*In Search of New Scales*, 42–5).

Messiaen's formulation of the modes of limited transposition. In his *Technique de mon langage musical* (1944), Messiaen explicitly stated that his modes have 'nothing in common with the three great modal systems of India, China, and ancient Greece; nor with the modes of plainchant (related to Greek modes)'.[123] However, to me, this exemplifies the type of rhetorical evasion that Messiaen practised frequently, more of which we shall see in the next chapter. I am inclined, therefore, to wonder if his protestation might be read as evidence of a potential (if loose and indirect) association between his modes and the various modal systems he chooses as the relevant point of comparison – particularly if 'modes' are conceived as generative structural principles rather than distinct entities. After all, Messiaen aligned his 'modes of limited transposition' conceptually with 'non-retrogradable rhythms', another structural device which he derived from Indian rhythmic materials, as I shall demonstrate. In the absence of manuscript evidence, these questions remain open; however, they provide suggestive contexts as we zoom in on Messiaen's case in the final chapter, turning from Indian modes to Indian metres.

[123] Messiaen, *Technique de mon langage musical*, 52; 'les "modes à transpositions limitées" n'ont rien de commun avec les trois grands systèmes modaux de l'Inde, de la Chine et de la Grèce antique; non plus qu'avec les modes du plain-chant (parents des modes grecs)'.

CHAPTER 8

OLIVIER MESSIAEN AND THE *DEŚĪTĀLA*S

Olivier Messiaen (1908–92) associated himself with Indian music to a greater degree than any of the composers so far considered.[1] For Messiaen, however, the novel appeal of Indian music was chiefly rhythmic – a shift in focus that reflects a similar musicological pivot traced in Chapter 3. Messiaen made use of Indian rhythms – specifically, the 120 *deśītāla*s from the thirteenth-century *Saṅgītaratnākara* of Śārṅgadeva, already familiar from Joanny Grosset's encyclopedia chapter[2] – in nearly every composition beginning from *La Nativité du Seigneur* in 1935.[3] From the late 1930s, he became increasingly vocal about their role in his musical language: he mentions Indian rhythm in two prominent critical articles in 1939[4]; and with the publication of his *Technique de mon langage musical* (hereafter, *TLM*) in 1944, its second chapter titled, 'Râgavardhana, rythme hindou', Messiaen gave Indian rhythm pride of place.[5] The rhythms became a famous (or infamous) core unit of his analysis curriculum at the Paris Conservatoire, where Messiaen apparently listed rhythmic patterns in a rote manner which belied the musical dynamism he derived from them, and implemented them to analyse works like *Le Sacre du printemps*.[6] The form of my argument in this chapter shifts from the

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[1] Scholars have called Messiaen's use of Indian music a 'biographème', borrowing a coinage from Barthes to designate the trivia that become irrevocably attached to the popular construction of a historical personage (Balmer et al., *Le modèle et l'invention*, 337).

[2] See Chapter 4 for discussion of Grosset and his scholarship; the 120 *deśītāla*s are found a mere twenty pages before the '72 échelles karnâtiques' discussed in Chapter 7, above. Messiaen's personal copy of the volume of Lavignac's *Encyclopédie*, including frequent annotations, is held at F-Pn, VM Fonds 30 MES 3(15).

[3] Some scholars have compiled lists in attempts to document Indian rhythms in Messiaen's compositions. See Šimundža, 'Messiaen's Rhythmical Organisation and Classical Indian Theory of Rhythm (I)', 125–8, which is in turn based on Halbreich, *Olivier Messiaen*, 162–3; and Michaely, *Die Musik Olivier Messiaens*, 44–6. The reader may consult such lists for reference; however, given the diverse ways Messiaen uses the *deśītāla*s, I argue that an exhaustive list of Messiaen's would be not only impossible but misleading.

[4] Messiaen, 'Le rythme chez Igor Strawinsky', and 'Autour d'une parution', in Broad, *Olivier Messiaen: Journalism 1935–1939*.

[5] Messiaen, *Technique de mon langage musical*, 7–8; page numbers in *TLM* refer to the version with text and musical examples integrated into one volume.

[6] Messiaen's teaching of Indian rhythms in his Conservatoire classes is corroborated via a number of sources. The years in which Indian rhythm figured on the curriculum can be referenced in Yvonne Loriod, 'Transcription des agendas d'Olivier Messiaen, 1939-1992'. Many of Messiaen's students have recounted his manner of teaching the Indian rhythms, with varying degrees of enthusiasm. Mark Delaere describes Karel Goeyvaerts's score of *Le Sacre du printemps*, annotated with *deśītāla*s ('Olivier Messiaen's Analysis Seminar and the Development of Post-War Serial Music', 39); Jean Boivin recalls how the Indian rhythms were used as analytical tools ('Musical Analysis According to Messiaen', 146; and *La Classe de Messiaen*, esp. 201–6); on the other hand, Boivin registers the discontent of Iannis Xenakis and François-Bernard Mâche, two of Messiaen's students who 'expressed regret that they were not shown how the *deçi-tâlas* were actually used in real ancient Hindu music' ('Musical Analysis According to Messiaen', 155). Loriod's own notes from the late 1940s include a list of Indian rhythms, clearly from Messiaen's teaching ('Dictionnaire de rythmes', F-Pn, RES

'phylogeny' of Chapter 7 to an 'ontogeny', focusing on Messiaen's endeavour to invent a new rhythmic technique over two decades of concerted effort, and demonstrating how deeply the philologically mediated search for 'Indo-European rhythm' became embedded into his compositional technique over time.

The exuberance with which Messiaen sometimes proclaimed his use of Indian rhythms, especially later in life, has led to the persisting 'perception of Messiaen as philologist, having decoded the *deśītāla*s' as Yves Balmer, Thomas Lacôte, and Christopher Brent Murray put it.[7] Musicologists have largely accepted Messiaen's own chronicle of his discovery of the *deśītāla*s, although some, like Balmer et al., have begun voicing scepticism. As Siglind Bruhn has written, 'most Messiaen scholars are so fond of the Indian table's exoticism and patina that they take Messiaen's claim of an essential inspiration at face value', stating that she is 'not aware of any well-documented critical examination'.[8] These authors' scepticism is appropriate, given Messiaen's careful fashioning of his artistic self-image, including cultivating airs of recondite erudition. When Claude Samuel asked him if any other western musicians knew about the 'Hindu rhythms', Messiaen replied, 'No, I am absolutely the only one'.[9] But this is a misdirection, given how widespread interest in 'Indian music' was during Messiaen's formative period. The work of Emmanuel and Dupré, already discussed at length in Chapter 7, were not the only avenues: Messiaen's composition teacher, Paul Dukas*, was also interested in India and known as a 'fervent reader' of the *Upaniṣad* and of the *Bhagavad gītā*;[10] Tournemire, who integrated the modes into programmatic and aprogrammatic works over the 1920s and '30s, was an important mentor to Messiaen; and the 1934 Prix de Rome cantata, *La Légende de Roukmani*, led young composers to written sources on Indian music

VMD Ms. 68). Near the time of completion of this thesis, Cheong Wai-Ling published a study of Messiaen's related use of Greek metrical terminology to analyse *Le sacre*, contextualising this analysis in histories of Greek philology which overlap compellingly with what I have traced here; see 'Ancient Greek rhythms in Messiaen's *Le sacre*'.

[7] Balmer et al., *Le modèle et l'invention*, 342. The authors' choice of the term 'philologist' is suggestive; while they are correct in the sense that Messiaen was not, as he sometimes made it seem, consulting ancient textual rhythmic sources, Messiaen's process bears the imprint of philology to a greater extent than they may have suspected.

[8] Bruhn, *Messiaen's Contemplations of Covenant and Incarnation*, 58.

[9] Messiaen and Samuel, *Musique et couleur: nouveaux entretiens avec Claude Samuel*, 83; 'Non, je suis absolument le seul'. Already in 1948, Messiaen articulated this claim in an interview with Heinrich Ströbel on the occasion of a performance of his *Trois Tâla* in Vienna: 'Moi seul suis capable de parler de ces choses [Indian rhythms], au moins d'un point de vue théorique.' He went on to add, 'Je ne suis d'ailleurs pas sûr que les Hindous aient eu conscience de leurs découvertes. De toute façon, je me sens très proche d'eux. Nous avons des aspirations communes – bien que cela soit étrange après tant de siècles…' (quoted in Baeck, 'André Cluytens et Les *Trois Tâla* d'Olivier Messiaen', 175).

[10] Balmer et al., *Le modèle et l'invention*, 339; Hamer, 'A Cultural Formation: Dukas and Elsa Barraine', 134.

right around the time Messiaen began his own explorations. As Balmer et al. note, Indian appropriations were thus not out of place at the Conservatoire[11] – even if, we might add, they were hardly part of the official curriculum, either.

Nor was Messiaen the only composer to engage with the fruits of musicological theories regarding ancient rhythm. Such experimentation, broadly glossed as 'rhythmopoeia', has been surveyed by Konstantine Panegyres in a recent study encompassing an impressive range of examples – from Kircher's *Musurgia Universalis* (1650), through Mendelssohn, Emmanuel, Stravinsky, Messiaen, François-Bernard Mâche (Messiaen's student), right up to the twenty-first century with British composer Roxanna Panufnik – showing classical metre's longstanding appeal as a source of rhythmic inspiration.[12] Even given this rich history, Emmanuel and Dupré provide the most salient contexts for situating Messiaen's experiments. Both were important pedagogues during his time at the Conservatoire (Messiaen won prizes in each one's discipline) and the fact that Messiaen regularly listed his history professor, alongside his instrumental and composition professors, as a formative figure is as significant as it might be surprising.[13] Emmanuel, too, had attempted instrumental composition with Greek metres as early as in his *Trois préludes pour piano* of 1893. Following his doctoral studies, Emmanuel sought to exploit the potential of Greek metres to generate rhythmic variety. His most concerted efforts culminated in his attempt to maintain Aeschylus's own prosody in *Salamine* (1921–7), his operatic adaptation of *Persai* with a libretto by Théodore Reinach*.[14] While Emmanuel's musical success in this endeavour was limited – reviews were tepid, largely due to the perception of the work's academic pedantry – Messiaen admired and defended the work.[15] Although Emmanuel does not appear to have explored beyond Greek metres in his compositions, his interest in Indian (especially Vedic) metre was evident in his musicological work – most notably in his paper, 'Le "rythme" d'Euripide à Debussy', published right around the time Messiaen was attending his class, in which he recapitulated Meillet's search for proto-Indo-European metre.[16] Dupré, meanwhile, had included a section

[11] Balmer et al., *Le modèle et l'invention*, 340.
[12] Panegyres, 'Classical Metre and Modern Music', 213.
[13] See, for example, Messiaen's preface to the 1980 re-edition of Emmanuel's *Histoire de la langue musicale*.
[14] Emmanuel, 'Avertissement', *Salamine*, i; on Emmanuel's and Reinach's concerns for metre in the operatic libretto (and the disagreements between them), see Corbier, *Poésie, musique et danse*, 499–563; and Dorf, *Performing Antiquity*, 95–9.
[15] Dorf, *Performing Antiquity*, 103; Corbier, *Poésie, musique et danse*, 639; see again Messiaen's preface to *Histoire de la langue musicale*, iii.
[16] Emmanuel's article is discussed at length in Chapter 3, above. It is worth also recalling here Bourgault-Ducoudray's brief experimentation with 'rythmes hindous'; see Chapter 7, note 3.

on Greek metres in his *Traité d'improvisation à l'orgue* – the same text in which he had presented his list of 'modes hindous'.

These antecedents notwithstanding, Messiaen's borrowings from 'Indian music' were original in scope, thorough in application, conspicuous in reception, and pivotal in their compositional ramifications for himself and for others. Two main factors distinguish Messiaen from most precedents in these regards. First, his prime rhythmic source materials are ancient Indian, alongside ancient Greek. Much has been made of this (not least by Messiaen himself), and although this difference is somewhat superficial, it is important that Messiaen used both Indian and Greek metres side by side, and frequently compared and analysed the *deśītāla*s in Greek metrical terms. Second and more significant, he sought not (only) to borrow classical metres in the manner of quotations, but rather to systematise principles underlying metrical structures – principles which could then be used to generate a new and open-ended rhythmic technique. In other words, Messiaen developed structures through which to realise Emmanuel's redefinition of 'rhythm' as 'the organisation of duration'.[17]

Moreover, Messiaen's appropriations built upon both the products and epistemological processes generated by comparative philology's encounter with music and musicology, and followed from preceding experiments in 'modality'. The presentation of the '72 Carnatic modes' as a generative system of tetrachordal combinatorics facilitated the analysis of these modes in search of underlying principles (as in Emmanuel's and Dupré's analyses), and their subsequent reconstitution in composition or improvisation. This systematisation is, as I have argued, the fruit of philologically mediated efforts to convert scales into quasi-morphological parameters of musical culture – an approach which likely contributed to Messiaen's own elaboration of 'modes à transposition limitée'. This process offered a potential model for an analogous approach with respect to rhythm/metre. However, unlike the 'Carnatic scales', the 120 *deśītāla*s are not organised by a generative pattern that could be straightforwardly reverse-engineered; the comparatively unsystematic gallery of rhythms posed a conundrum, acknowledged by Messiaen when he remarked to Claude Samuel that the *deśītāla*s were 'gathered together in a bit of disorder by Śārṅgadeva'.[18] Lewis Rowell, in his scholarly discussion of the *deśītāla*s in the early Indian context, admits the same concern: asking, 'How

[17] Recall this phrase from Chapter 3; Emmanuel, 'Le "rythme" d'Euripide à Debussy', 141.
[18] Messiaen and Samuel, *Musique et couleur*, 81.

systematic is this array of *tāla*s?', Rowell concedes that our knowledge is limited in many respects: 'we have no evidence that indicates which *tāla*s were popular, which were not, and which may have been purely theoretical concoctions'.[19] The 'disorderliness' that may seem apparent to Messiaen or to a contemporary reader of the 120 *deśītāla*s might, in part, be elucidated retrospectively in light of the *śāstra* traditions to which the *Saṅgītaratnākara* belongs (see Chapter 4 and Appendix C). But these vagaries did not prevent Messiaen from seeking a logic to their structure. He recalled to Samuel: 'I immediately felt that it was an extraordinary mine, I looked at it and copied it, contemplated it and turned it in every direction for years, in order to grasp the hidden meaning'.[20] As I shall demonstrate, Messiaen's approach to Indian metres began with a quasi-philological search for structures – by analysing and breaking rhythms down to bare principles – followed by the extrapolation of techniques that could then be re-deployed in new compositions. Thus – to reanimate a distinction drawn in Chapter 7 between 'melodic' objects and 'modal' structures – Messiaen not only borrows Indian rhythms verbatim as objects, but engages in a search for structures which flows naturally from Emmanuel's own efforts to pinpoint principles of proto-Indo-European metre. He then reconstituted and deployed these structural principles in his compositions as rhythmic 'procedures'.

The processes of systematisation and reconstitution gets to the heart of Messiaen's compositional technique. In their recent, landmark study, Balmer, Lacôte, and Murray propose a theory of Messiaen's compositional approach called the 'technique de l'emprunt' ('borrowing technique').[21] They show that vast swathes of Messiaen's music were 'borrowed' from a staggering array of sources – including composers as early as Claude Le Jeune and Jean-Philippe Rameau and as contemporaneous as Arthur Honegger and André Jolivet; the anonymous sources of plainchant and folksong; and what the authors call Messiaen's 'ethnographic gallery' – borrowings of Chinese, Korean, Peruvian, Russian, and Indian music, largely drawn from Lavignac's *Encyclopédie*. But rather than quoting these musical materials verbatim, Messiaen subjected them to what he called, vaguely, his 'prisme déformant' ('deforming prism')[22] – transforming his borrowings beyond recognition as he introduced them into compositions. The 'prism', the authors explain, is the assemblage of

[19] Rowell, *Music and Musical Thought in Early India*, 212–14.
[20] Messiaen and Samuel, 82; '...j'ai senti immédiatement que c'était une mine extraordinaire, je l'ai regardée et copiée, contemplée et retournée dans tous les sens pendant des années afin de parvenir à en saisir le sens caché.'
[21] Balmer et al., *Le modèle et l'invention*; see also, Balmer et al., 'Messiaen the Borrower'.
[22] Messiaen, *TLM*, 46.

modal and rhythmic techniques – such as the various 'modes à transposition limitée' or the 'valeur ajoutée' – by which Messiaen reshaped borrowed materials. By refracting borrowed materials through this prism, Messiaen effectively 'unified' eclectic source objects, assimilating them to a common lexicon built of his transformational techniques.

Balmer et al.'s theory of Messiaen's process provides revelatory insights for analysing Messiaen's compositions. However, in revealing the extent to which Messiaen deployed the 'deforming prism' throughout his oeuvre, the authors leave open questions regarding its genesis and development, almost as though the 'prism' always existed. To be sure, if the 'prism' governs the implementation of the 'borrowing technique', then Messiaen must have constituted it, at least in part, very early on; yet it seems unlikely that Messiaen wholly developed his transformational techniques in a hermetic theoretical context, at a stage prior to composition. This clearcut separation – the theoretical construction of the prism on one hand, and its implementation upon borrowed materials in the compositional process on the other – if a convenient heuristic, seems too facile. My own study of the development of Messiaen's rhythmic techniques (including study of manuscript materials housed at the Bibliothèque nationale de France, still to be fully catalogued and made available at the time of writing, and unavailable to Balmer et al. when they submitted their manuscript[23]), leads me to hypothesise a more complex dialectic at play in the development of the 'deforming prism', clarified in light of contexts of philological mediation at the core of this thesis. In fact, many of Messiaen's core transformational techniques ('facets' of his prism, so to speak) were themselves derived from borrowed materials – extrapolated from various sources and gradually abstracted as independent procedures – such that Messiaen's prism was itself constructed from the very borrowings which it then transformed, resulting in a logic of infinite regress which I argue is crucial to analysing Messiaen's music. (One might view this circularity as an extension of Bourgault-Ducoudray's strategy of harmonising arrangements of melodies based on the modes derived from those melodies.) The case for this more complex model of the prism is especially clear with respect to Messiaen's borrowings from Indian rhythms. In particular, as I shall demonstrate, three of Messiaen's main techniques of rhythmic transformation over the 1930s–40s – namely, (1) the added value, (2) non-retrogradability, and (3) augmentation/diminution – were themselves derived from his search for underlying structures of the *deśītāla*s.

[23] See Marie-Gabrielle Soret, 'Olivier Messiaen le défricheur'.

Understanding the dynamic fluidity between Messiaen's models and his transformational techniques – in other words, how Indian rhythms are borrowed both as objects, and as structural principles – yields important and unforeseen insights. At times, Messiaen applied the rhythmic procedures of the prism onto the borrowed rhythms themselves, creating a feedback loop by which the original Indian rhythms dissolved and degenerated. Repeated, recursive iterations eventually led the *deśītāla*s to unravel into increasingly abstracted rhythmic patterns: this process reached a logical conclusion, I suggest, in Messiaen's experiments in rhythmic 'hyperrationalism' epitomised at the turn of the 1950s – not generally conceived as a product of his experiments with Indian metres.[24] Ultimately, therefore, the thorough use of the *deśītāla*s participates in their own concealment – an apparent paradox, were we not already attuned to the logics of structural abstraction and assimilation brought about through philological mediation itself. Understanding the dynamic relationship between Messiaen's source materials and transformational procedures thus reveals, in the final analysis, how Messiaen's borrowings, and by extension the Indo-Europeanist project, are even more thoroughly embedded in his compositional technique than previously imagined – including in a work as ostentatiously formalist as 'Mode de valeurs et d'intensités' (1949).

In this chapter, I trace the journey from 'Carnatic modes' to 'Mode de valeurs' through genetic criticism of several of Messiaen's sketches and works from this period.[25] Though this analysis may sometimes appear to drift far afield from the contexts of Indo-Europeanist philology, the project of honing and integrating structures of ancient Indian metres remains overarching, and these close readings are essential to conveying the prevalence of this project throughout Messiaen's early style. Following these analyses, I examine the rhetorical strategies employed by Messiaen to variously dissimulate or distinguish his Indianist borrowings: returning to the theme of paratexts, I suggest that Messiaen performed 'exoticism' or 'formalism' at various times, engaging contrasting discourses which have masked meaningful continuities in his technique. I conclude by reconsidering Messiaen's

[24] Incidentally, the logic of 'recursive' procedures is also central to Messiaen's logic of 'interversions', which he develops toward the turn of the 1950s.

[25] I turn to sketches not primarily in the hopes of elucidating finished works, but rather in search of the processes of working-out, the trial and refinement of ideas (whether ultimately adopted or rejected), and the slippage between Messiaen's analytical and compositional procedures. In this approach I am guided by sketch scholars like William Kinderman, who advocates for a 'genetic criticism' by which sketches illuminate the 'creative process' conceived broadly (see *The Creative Process in Music from Mozart to Kurtág*, 1–11).

'experimentalism' – and his 'exoticism' – around the turn of the 1950s. In channelling a prehistory of Messiaen's rhythmic rationalism through French musical Indo-Europeanism, I challenge the prevailing historiographical gloss of this work as an application of 'Viennese' serialist procedures upon musical parameters beyond pitch.

The deśītālas and Messiaen's creative process: an initial encounter?

A reexamination of Messiaen's earliest experimentation with the *deśītāla*s is enabled by the recent introduction of his archives to the Bibliothèque nationale de France: while the amount of materials preserved from Messiaen's early life is scant compared to when his fame grew, the archive contains important artefacts from his incipient career. In addition to collections of loose sketch materials, organised by work, three notebooks (the so-called 'Cahiers' Vert, Beige, and Rouge) used by Messiaen consistently over the 1930s and '40s offer crucial insights.[26] Page 53 of Messiaen's 'Cahier Vert' contains perhaps the earliest transcription of Indian rhythms among the archived materials currently available (Fig. 8.1).[27] The contents of the notebook indicate use spanning the 1930s and early '40s. Specifically, on page 53 and the surrounding pages, Messiaen was drafting the third movement of his organ arrangement of *L'Ascension*, suggesting that the sketches on these pages date from 1933–4. His prose plans for the organ movement appear seamlessly interspersed among his transcriptions of Indian music, suggesting contemporaneity. Because I believe this page likely documents Messiaen's initial encounter with the *deśītāla*s, I examine it in detail. A schematic survey of this dense sketch page is provided in Appendix D; reference to this appendix is made below via section designations, such that the reader may wish to keep the appendix close at hand. In what follows, I summarise four main observations gleaned from analysis of the page: (1) the cursory nature of this encounter; (2) Messiaen's interest in transformational principles; (3) logics of combination and counterpoint; (4) and additive, numerical treatments of duration. (For definitions of the *deśītāla*s by name and in western notation, see again Appendix C.)

[26] For a number of earlier works, no sketches survive.
[27] F-Pn, RES VMA Ms. 1491.

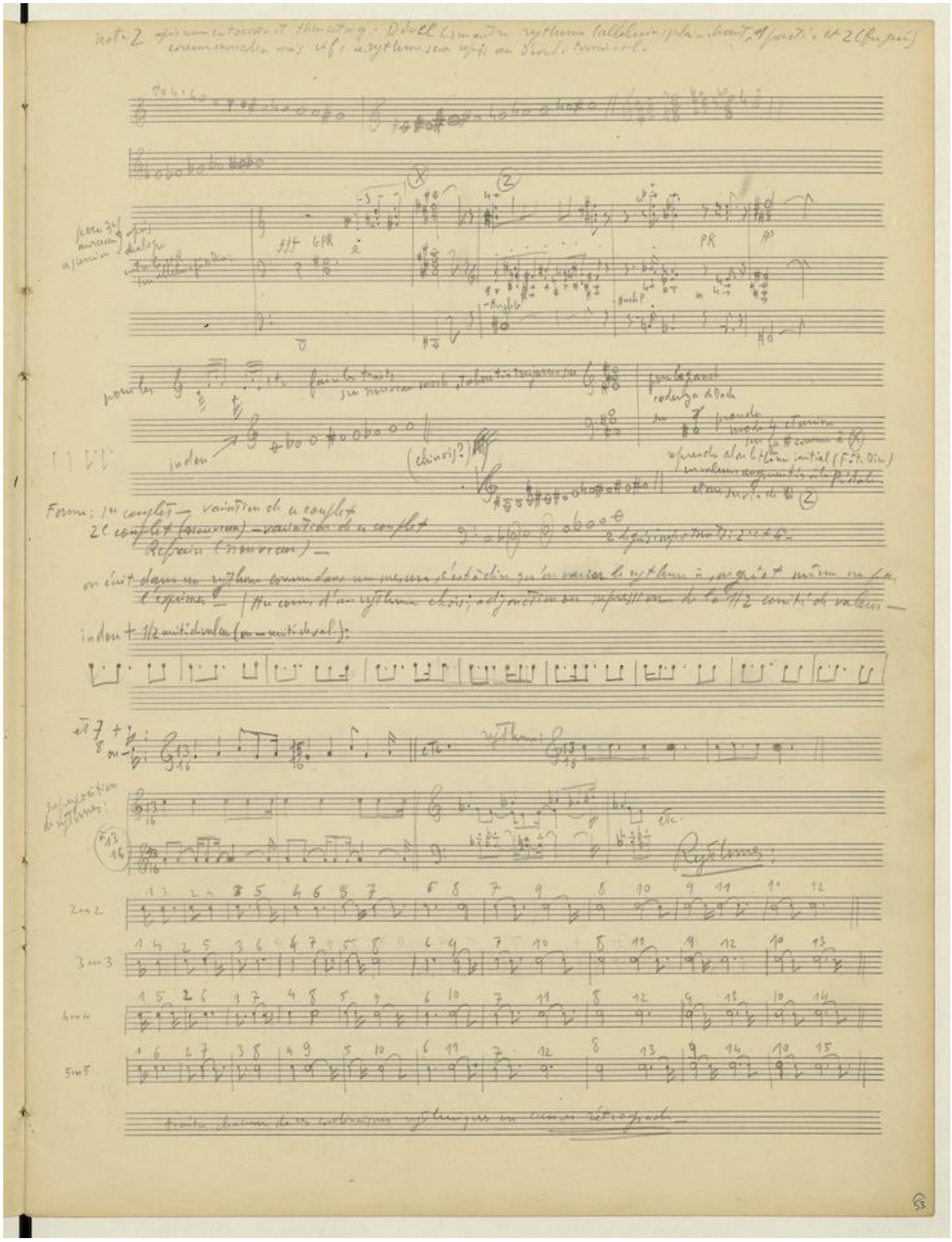


Figure 8.1: Sketch page from Messiaen's 'cahier vert' showing initial notes regarding the *deśītāla*s (see detail, Appendix D).
(*Source: F-Pn, RES VMA Ms. 1491, p. 53*)

First, Messiaen's notes here appear tentative – compared to later sketches, these ones betray a vague unfamiliarity with the source materials.[28] His sketches, which include two Carnatic modes and a *deśītāla* scrawled in the margins, are faint, with question marks and limited explanation or development (1a, 1b); the first of these is the same mode privileged by Emmanuel in his *Sonatine*. His instructions on the mechanics of Indian rhythm (1d), while they bear a loose resemblance to sections of Grosset's commentary regarding the durational values of the *druta* and the *virama*, are imprecise – giving rise to the creative misreading[29] which morphs into his principle of the *valeur ajoutée*.[30]

Second, it is striking that Messiaen immediately modifies the first *deśītāla* he copies down, namely, the *deśītāla* '*turangalîla*'. Applying his prose indications (1d) upon this rhythm (1e), he approaches the *deśītāla*s as rhythmic *procedures* rather than fixed entities. Having notated the rhythm from Grosset's table, he systematically manipulates it according to what he interprets as an appropriate procedure – the '½ unité de valeur ajoutée'. He then dissociates this procedural technique from the *deśītāla*s, applying it to a new rhythm of seven quavers which is not itself a *deśītāla* (1f). The extrapolation of the added-value principle from the first encounter with the *deśītāla*s is perhaps the single most important turning point in the development of Messiaen's rhythmic language.

The third point regards Messiaen's contrapuntal approach to rhythmic combination. After notating two rhythms (1f, 1g), Messiaen superposes them on two staves (1h). His conception

[28] These scattershot notations and the remarks surrounding them raises the question of whether in this instance Messiaen might have been apprehending this material aurally (perhaps during a lecture), or else consulting the *Encyclopédie* in a rapid and approximate fashion. Messiaen's spelling of the word 'indou' differs from Grosset's (the more standard 'hindou'); his emphasis on the 'important degrees' of the mode are not to be found in Grosset's footnote; each of the *deśītāla*s copied out have their values doubled, the basic unit as the quaver rather than the semiquaver; and his emendation of another *deśītāla*, by filling in its terminal minim (1g), further suggests either the hastiness of his encounter or his relative unconcern for the *deśītāla*s' rhythmic integrity.
[29] Balmer et al. trace Messiaen's conception of the 'valeur ajoutée' to the passage of Grosset's text where he explains the short note value of the *druta*, equal to half of the *laghu*, and where he explains the *virama* which can be appended (like a dot in western notation) to a duration, thus increasing its length by half (Grosset, 'Inde', 300; Balmer et al., *Le modèle et l'invention*, 347–51). They note that the principle begins as the '½ unité de valeur ajoutée' at the time of *La Nativité*, eventually becoming simply, the 'valeur ajoutée' by the time of the *Quatuor pour la fin du Temps* (350). Whatever the case, Grosset does not appear to suggest here that the *deśītāla*s might themselves be modified, as Messiaen seems to infer in his note.
[30] Stephen Broad posited an alternative genealogy of the *valeur ajoutée*, via André Mocquereau's discussions of the Greek terms 'arsis' and 'thesis' – terms of considerable theoretical importance for Emmanuel as well as Messiaen ('Recontextualising Messiaen's Early Career', 133–8). Although the manuscript materials effectively disprove this hypothesis, Broad's justifications were compelling, and of significant pertinence to the present thesis: after all, Mocquereau's own theories of 'arsis' and 'thesis' were motivated by his own engagements with philology (see above, Chapter 3), and were significant in Messiaen's formation more generally – suggesting another strand of interplay between philology and composition meriting further scrutiny.

of the *deśītāla*s, therefore, is that they are subdivisions of a duration (13 semiquavers, in this case), rather than as metrical structures. As such, two patterns of the same length can be superimposed, creating interplay between two rhythmic 'voices'. Messiaen's recourse to contrapuntal techniques will be explored further in the next sketch, and will become critical to the procedural frameworks he derives from the *deśītāla*s. The connection between Messiaen's use of rhythm and contrapuntal principles significantly clarifies what might otherwise seem a capricious treatment of rhythms (and suggests that counterpoint is more integral to Messiaen's technique than generally thought).[31] While there is no evidence that Messiaen read Antoine Meillet's 1923 study of Indo-European metres, these experiments effectively respond to Meillet's vision that modern composers should 'counterpoint rhythms'.[32]

Finally, a note regarding the sequence of durations at the bottom of this sketch page (1i). Here, Messiaen puts aside the *deśītāla*s, and applies something like the added-value principle repeatedly to an iambic rhythm, generating 40 two-duration rhythms in total; he numbers each duration with its value in semiquavers. The resulting rhythmic sequence represents each duration from 1 to 12 semiquavers, and resembles a rationalised procedure in 'La Vierge et l'enfant,' from *Vingt regards sur l'enfant-Jésus*. Given the complexity of this procedure and the contents of nearby pages, which include fragmentary sketches of materials for *Vingt regards*, it seems unlikely that this section was drafted at the same time as the foregoing materials on the page; more probably, Messiaen returned to this page and composed these rhythms years later – I shall revisit this possibility below.

[31] See Neidhöfer, 'Messiaen's Counterpoint', in which the author argues against the notion that Messiaen's music features an 'apparent dearth of contrapuntal writing' (77). He points out the importance of counterpoint in Messiaen's Conservatoire training, and observes the importance of retrogradation, augmentation, diminution, canons, and other conceits in this training (104). Messiaen won *premier prix* in Fugue in 1926.
[32] Meillet, *Les origines indo-européennes des mètres grecs*, 20; see discussion of Meillet's comment in Chapter 3, above.

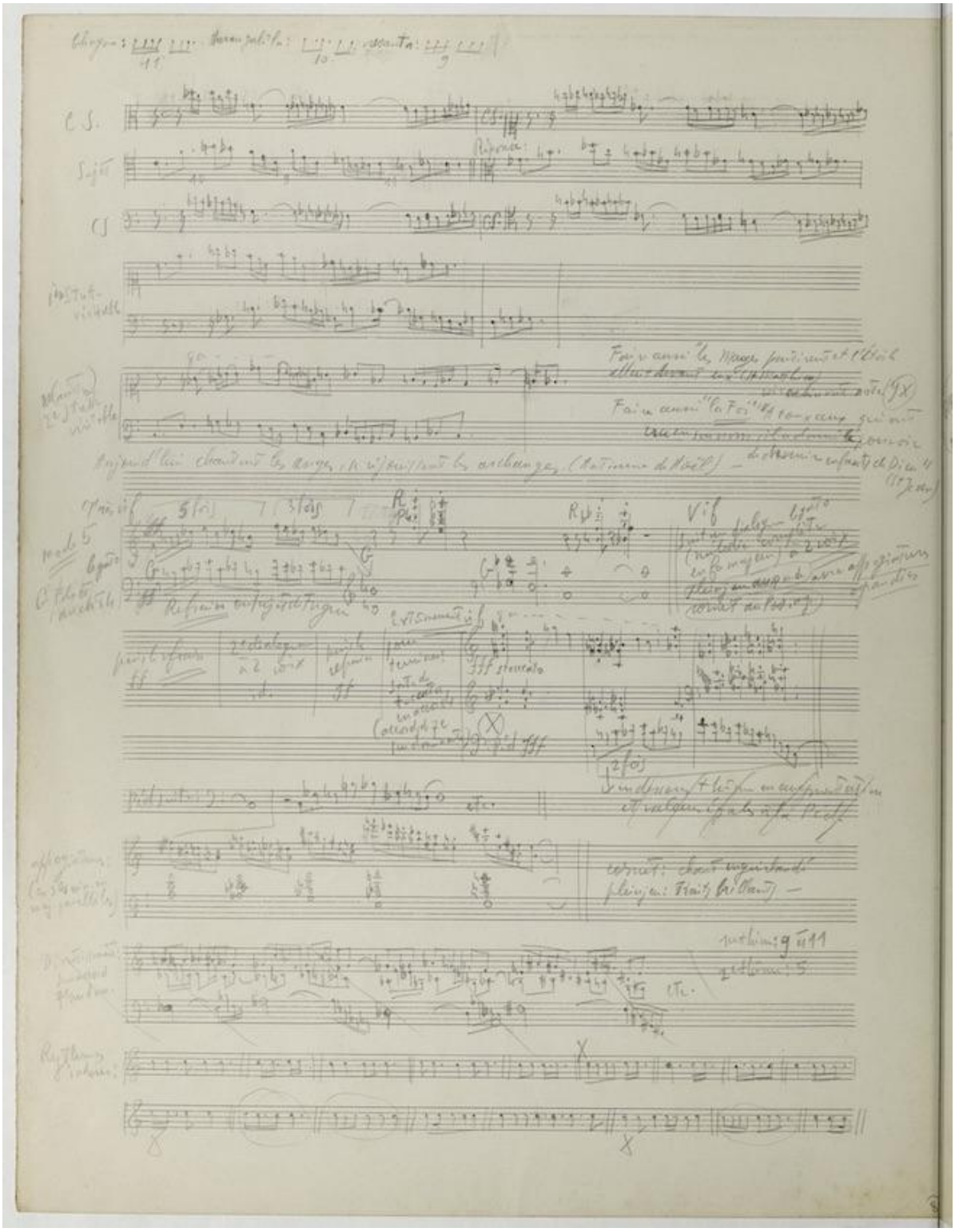


Figure 8.2: Page from Messiaen's sketches for *La Nativité du Seigneur* (see detail, Appendix D).
(*Source: BNF F-Pn, RES VMA Ms. 1554*)

Elsewhere, Messiaen transcribed *deśītāla*s as rhythmic entities to be more straightforwardly borrowed. Such is his approach on the second manuscript page analysed in Appendix D, where he copies a variety of the *deśītāla*s (2a, 2h) (Fig. 8.2). This page, from sketches for *La Nativité du Seigneur*, extends, and complicates, some of the observations from the page discussed above. Messiaen's retention of some of the *deśītāla*s' Sanskrit names (2a) suggests that Grosset's article is at hand. In contrast to his initial focus on procedure, these labels reify the rhythms as standalone entities. His use of numerals to denote the total number of semiquavers per *deśītāla* (2a) suggests that he is now thinking of them in relation to durational, and potentially mensural, units; the three consecutive integers (11, 10, 9) might adumbrate his later principle of 'chromatic durations'.

Below this bank of three *deśītāla*s in the upper margin, Messiaen continues to show the imprint of counterpoint pedagogy on his experimentation. He constructs a subject from the *deśītāla*s on the central line, with a counter-subject filling the space opened up by lengthier durations (2b). He then superimposes the subject on itself, operating two different 'stretti' (2c, 2d). Although these stretto techniques do not make it into *La Nativité*, they are significant for at least two reasons. First, they again situate Messiaen's manipulation of rhythm within a rubric of Conservatoire counterpoint training, a connection which will play out in Messiaen's later rhythmic observations and experiments, particularly with respect to augmentation, diminution, and retrogradation. Second, the stretti structure an additive, amensural approach to rhythm. Here, the *deśītāla*s no longer structure the subdivisions of a countersubject as above (2b): as separate voices, they operate independently of one another or of any underlying time signature or metre, thus paving the way for more complex superpositions of extended rhythms. Lower down on this page, Messiaen finally sketches the configuration of the rhythms '*vasanta*' and '*bhagna*' which eventually becomes the opening of 'Les Anges' (2f).

Further sketches in the *cahiers* and on loose leaves display more explorations with the *deśītāla*s. Throughout sketches for *La Nativité*, Messiaen regularly jots down his intention to use Indian rhythms: for example, in sketches for what becomes 'Dieu parmi nous', he writes, 'C theme, (with Hindu rhythms) and exquisite harmonies (Pelléas etc.)'.[33] Referring to what becomes 'Desseins éternels', he suggests, 'Start the piece with bits of this **A** melody,

[33] F-Pn, fonds Messiaen, Ms. 1554, 2; 'thême C, (avec rythmes indous) et harmonies exquises (Pelléas etc.)'.

alternating with a full melody (very alleluiatic...Hindu rhythms etc.).[34] Here, he uses the term 'rythmes indous' not to denote the borrowing of *deśītāla*s verbatim, but as a shorthand for the added-value principle broadly. This intent is reflected in Messiaen's intermediate sketch of that movement, noted in a time signature of 13/16 + 11/16; the rhythms he employs are not *deśītāla*s but instead recall Messiaen's extrapolation of the added-value principle from his initial encounter, as shown above (Appendix D, 1f).[35] In this sense, the Indian rhythms, conceived as procedures such as the *valeur ajoutée*, enrich the transformational techniques of Messiaen's 'deforming prism'.

Composing with the deśītāla*s, between objects and procedures.*

Together these sketch pages have shown Messiaen developing an 'additive' approach to rhythm from the *deśītāla*s in two interlocking ways: through the 'added value' which destabilises the regularity of beats, and through the agglutination and contrapuntal superposition of *deśītāla*s of different durations to destabilise metrical regularity of bars.[36] The 'added value' was the most rudimentary, but fundamental, of several interrelated techniques that Messiaen developed from the *deśītāla*s over the ensuing years. While Messiaen had already attempted a modest degree of rhythmic irregularity in early works like the *Préludes* and *L'Ascension*, through ties suspended over barlines and displacements of emphasis and accent, the encounter with the *deśītāla*s supplied structures and materials for Messiaen to push this impulse further, and constituted a necessary condition for his later, numerically determined 'organisation of durations'. Compositionally, it is first put to the test in *La Nativité du Seigneur* (1935).

The added-value principle (La Nativité du Seigneur). Paul Griffiths contended that Messiaen's use of the *deśītāla*s is 'limited' in *La Nativité*; but there are several reasons to

[34] Ibid., 10; 'Commencer le morceau par des bribes de ce chant **A**, alternées avec une mélodie complète (très alleluiatique...rythmes indous etc.)'.
[35] Ibid., 12. In the final version of 'Desseins éternels', Messiaen simplified the rhythm.
[36] In using the term 'additive', I mean specifically a concept of rhythm based on the agglutination of durations, which does not interact with a background metrical structure. I do not mean to put forth a description of the fundamental structure of rhythm in medieval Indian music, nor do I mean to follow Curt Sachs (who coined the term) in ascribing additive/divisive rhythmic origins to language/dance respectively. However, given the intentionality with which Messiaen built ametrical music through the addition of *deśītāla*s, and later, numerical durations, the concept of 'additive rhythm' remains useful. For one consideration of the potential problems and grey areas raised by the notion of 'additive rhythm', see Agawu, *Representing African Music*, 86–91.

revisit this claim.[37] While its rhythmic borrowings are marked less obviously than the demonstrative signposting in scores, prefaces, and analyses of several of Messiaen's later works, *La Nativité* still contains the significant imprint of the *deśītāla*s, in ways which illuminate his creative process. Messiaen's dual understanding of the *deśītāla*s, not only as rhythmic objects but also as structural procedures, is crucial for understanding the thoroughness of their presence in this cycle. In the first movement, 'La Vierge et l'enfant', the opening motif (Fig. 8.3*a*) – based on a rhythmically straightforward melodic contour (borrowed from *Boris Godunov* and widely used throughout Messiaen's oeuvre[38]) – is presented with an added-value semiquaver. There are no *deśītāla*s here, but the phrase is marked by the first rhythmic principle Messiaen derived from them. Here the added half-unit value acts as a sudden rupture, a jump cut away from the repetition of the *Boris* phrase; yet its pointedness is compensated for by the unmeasured four-note embellishment which tumbles into the next bar, breathing space into the first beat. It is as if Messiaen took particular care, in this early and exposed application of the added half-unit value, to allow recovery from its abruptness, to balance its calculatedness against slack, and even to foster familiarisation, through sequenced repetitions of the phrase.

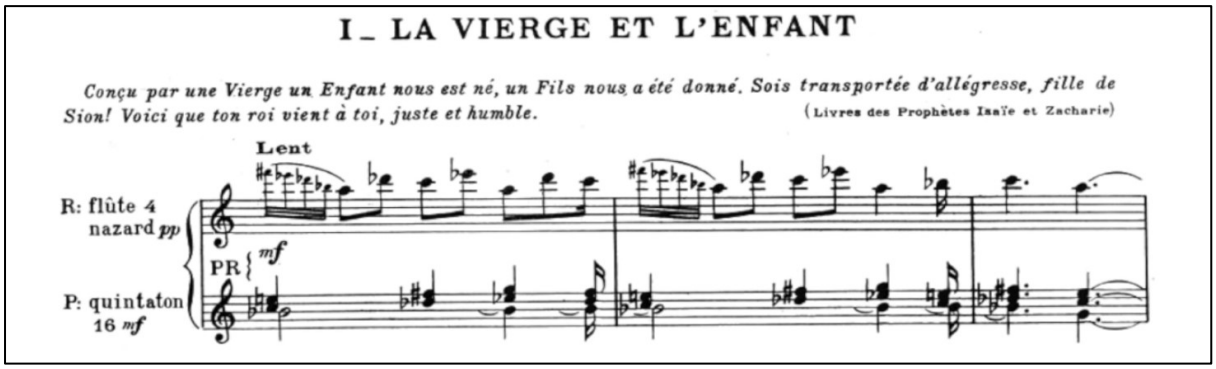


Figure 8.3*a*: Opening bars of 'La Vierge et l'enfant', *La Nativité du Seigneur*

The contrasting middle section of this movement exhibits another approach, elucidated by the sketch pages. Messiaen structures this section upon an 11-unit bar length, underpinned by a five-note motif in the pedal part (Fig. 8.3*b*). This pedal part, as it turns out, is the *deśītāla* '*turangalîla*', transformed by the addition of a half-unit value at the end – the exact

[37] Griffiths, *Olivier Messiaen and the Music of Time*, 60. He writes: 'For the moment Messiaen's use of the deçî-tâlas is limited. One of them, with the auspicious name of *turangalîla*, is notated in the preface but not in the music, while other features, such as the alternation of 3/4 and 7/16 in "Les mages", suggest the Śārṅgadeva patterns without exactly repeating any of them.'
[38] Balmer et al., *Le modèle et l'invention*, 380–1.

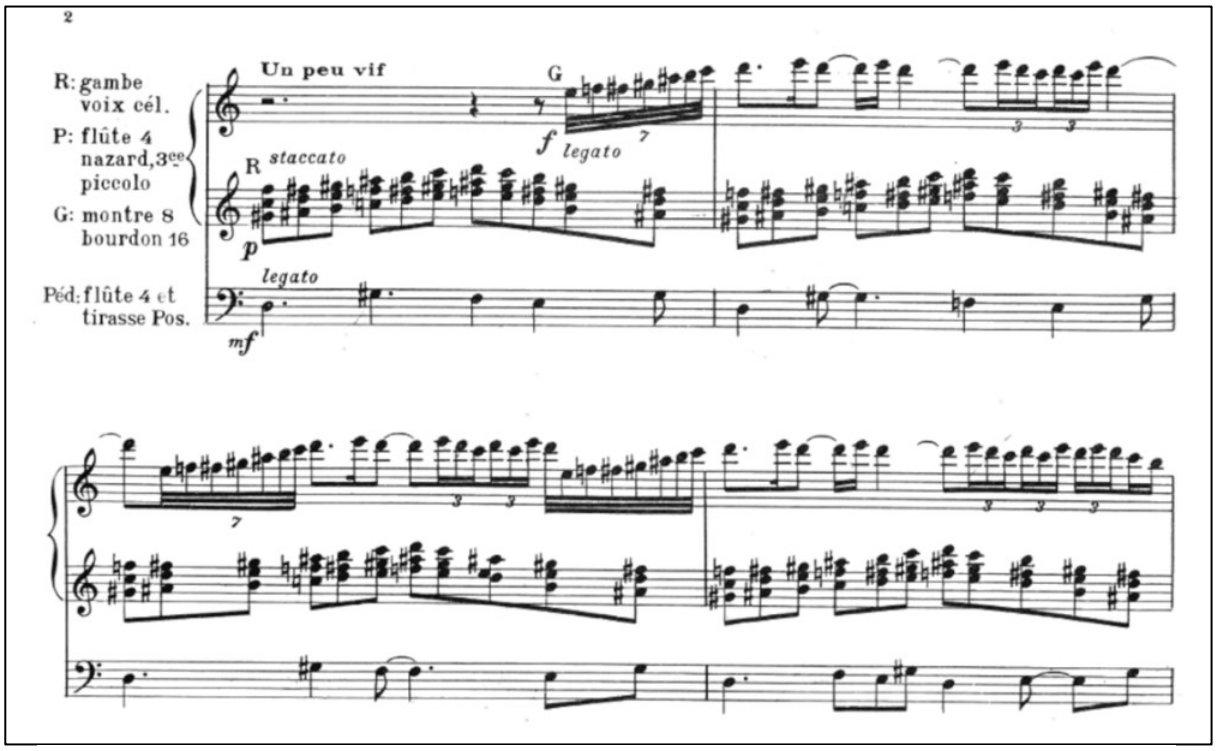


Figure 8.3*b*: From 'La Vierge et l'enfant', *La Nativité du Seigneur*, middle section

transformation Messiaen performed when first copying down the rhythm (Appendix D, 1e).[39] The 11-unit length remains constant throughout this section, even as Messiaen modifies the specific rhythm of the pedal figure – recalling how Messiaen's added value shifted position within '*turangalîla*' in that same sketch. The two approaches to extrapolating *deśītāla*s used in this movement are exemplary and set the stage for the dialectic between borrowed objects and transformational procedures that characterises Messiaen's 'deforming prism'.

In the fourth movement, 'Le Verbe', Messiaen treats the *deśītāla*s as entities. The opening is structured by a rhythm in the left hand; this rhythm is '*râgavardhana*', retrograded. (Because of the division of the rhythm into two bars, the second bar becomes a palindromic, or 'non-retrogradable', rhythm – a feature of '*râgavardhana*' which becomes critical in future works.) This opening gesture is followed by four dense chords on the manuals, sustained over a powerful descent in the pedal (Fig. 8.4*a*). The pedal line again draws our attention back to page 53 of the 'Cahier Vert': while not a *deśītāla*, its rhythm is the 13/16 figure which

[39] It turns out that this transformed '*turangalîla*' is itself another *deśītāla*, '*nihçankalîla*'; however, having seen how Messiaen derived it via the added-value principle in his sketch, it makes more historical sense to read it as a modified '*turangalîla*'. Messiaen's preference for '*turangalîla*' is evident in the *Traité*, as well, where he devotes over a page to '*turangalîla*' (280–1), compared to a few lines for '*nihçankalîla*' (274).

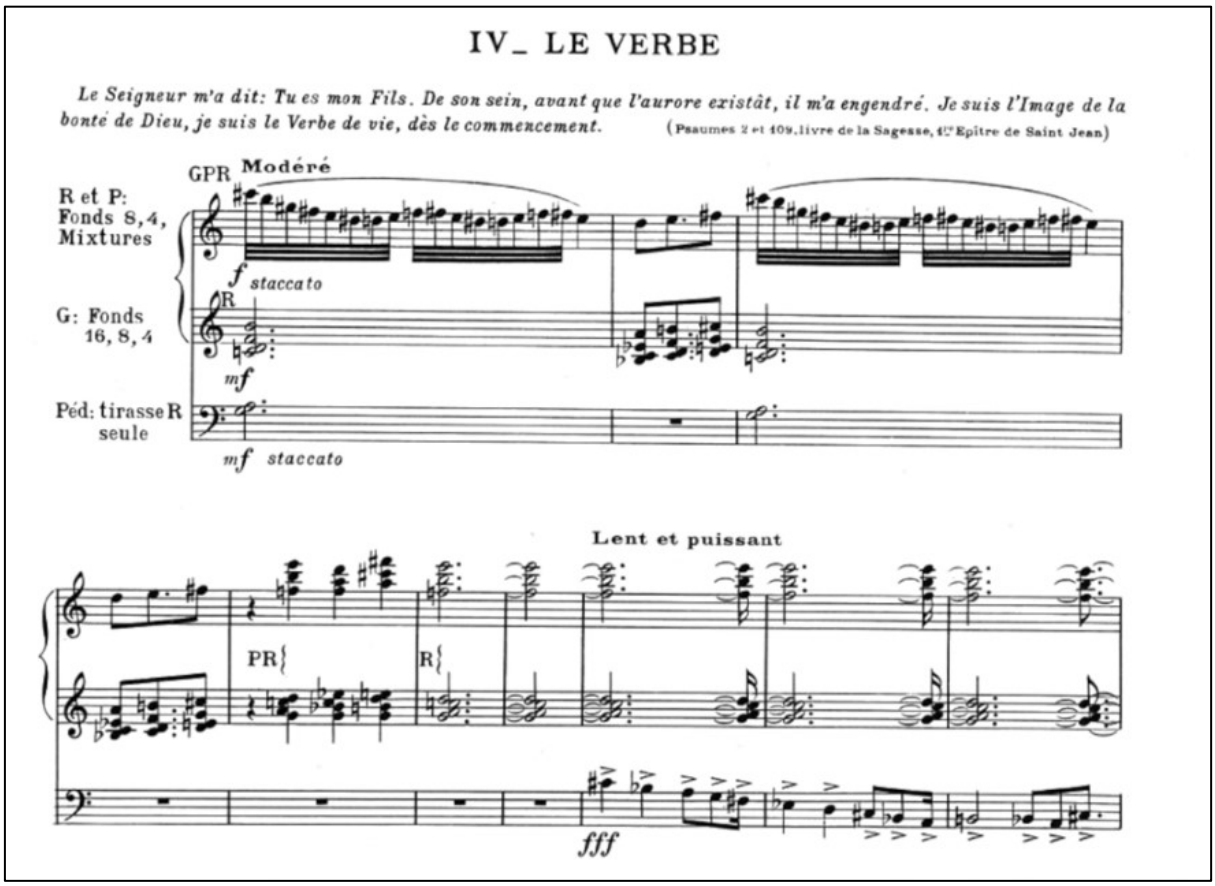


Figure 8.4*a*: 'Le Verbe'**,** from *La Nativité du Seigneur*, opening bars

Messiaen sketched to illustrate the 'added value' principle (Appendix D, 1f, adjacent to his copying of '*râgavardhana*'), and which becomes the basis of the canon in the B section of the movement. Perhaps it is not coincidental that this descending scale follows the mode copied by Messiaen on the same page (1c) (transposed up a tone and rounded off with the *Boris* motif). Messiaen's sketch pages, therefore, reveal deeper links between certain phrases and his reading of Indian music – links which, due to his various transformations, remain imperceptible through analysis alone.

Later in this movement, Messiaen superposes multiple *deśītāla*s. This begins with a rhythmic canon of the 13/16 figure mentioned above, recalling the stretti of his sketches (2c, 2d). It continues in the bars that follow: Messiaen repeats the *Boris* motif, mapped onto the '*turangalîla*' rhythm (here unmodified), while the left hand plays a six-chord sequence which may be rhythmically described as the *deśītāla* '*sârasa*'.[40] '*Turangalîla*' lasts 10 semiquavers

[40] See Sherlaw Johnson's analysis of this passage (*Messiaen*, 48). Recall Griffiths's claim that '*turangalîla*' does not appear in *La Nativité* (60); Halbreich also misses this instance of the rhythm in his list (*Messiaen*, 162).

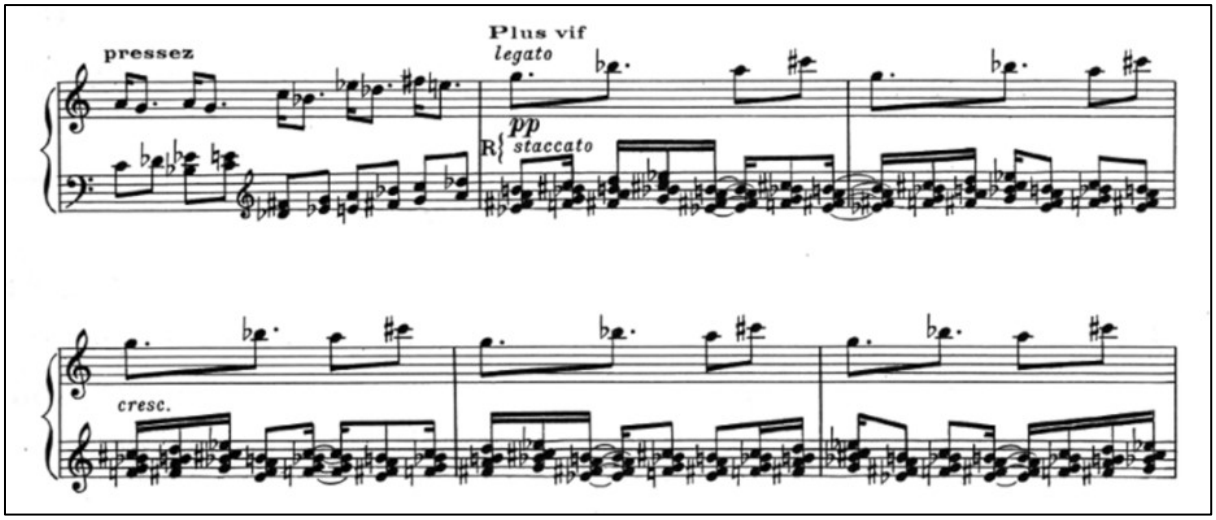


Figure 8.4*b*: From *La Nativité du Seigneur*, 'Le Verbe', middle section

in total, and '*sârasa*' 9, meaning that their alignment shifts (Fig. 8.4*b*). Citing the passage in *TLM*, Messiaen describes this technique as 'Superposition of rhythms of unequal length', noting that it would require nine iterations of the upper rhythm, or ten of the lower, for the starting points to resynchronise.[41] This passage is an embryonic instance of a similar, more famous conceit of 'rhythmic pedals' in the 'Liturgie de cristal,' the first movement of the *Quatuor pour la fin du Temps*, as well as even more complex rhythmic superpositions in later works. Jonathan Cross has rightly connected Messiaen's 'layered' use of rhythms to his readings of Debussy and Stravinsky;[42] yet the *deśītāla*s afford Messiaen more complex experimentation in this regard, as he layers additive durational sequences rather than divisive metrical structures.

These brief analyses offer a merely partial glimpse of the presence of *deśītāla*s in *La Nativité du Seigneur*.[43] Because of Messiaen's propensity to transform the *deśītāla*s, competing readings arise: where Robert Sherlaw Johnson read the descending pedal line in 'Dieu parmi nous' as '*râgavardhana*' with a subtracted half-value, I read it as '*vasanta*' in retrograde; where I read '*bhagna*' in the opening of 'Les Anges', he read '*vasanta*' with two added half-values.[44] However, rather than pitting my rhythmic analysis against his, I note that the

[41] Messiaen, *TLM*, 17; 'Superposition de rythmes d'inégale longueur'.
[42] Cross, *The Stravinsky Legacy*, ch. 3.
[43] Further examples include the use of '*bhagna*' in alternation with '*vasanta*' in the melody of 'Les Anges'; the retrograded and subdivided '*râgavardhana*' which structures much of 'Les Mages'; or the opening '*laksmiça*', and triumphant '*vasanta*' and '*candrakalâ*' of the toccata, in 'Dieu parmi nous'.
[44] Sherlaw Johnson, *Messiaen*, 49–50.

ambiguity emanates precisely from the phenomenon I am illustrating – namely Messiaen's treatment of the *deśītāla*s as both entities and procedures, and his application of the procedures to the entities themselves.[45] Beyond a few obvious *deśītāla* borrowings, Messiaen's encounter with Indian rhythm is thus more pervasively embedded in *La Nativité* than meets the eye – concealed via transformational techniques themselves derived from the *deśītāla*s and from principles of counterpoint.

The *deśītāla*s' duality – as source and object of transformational principles – is made especially clear in the published preface to *La Nativité*, in which Messiaen explains his rhythmic technique. While he makes no reference to the rhythms' Indian provenance, he illustrates the added-value principle with two sets of three rhythms, the second set related to the first set but transformed by added half-units of value (Fig. 8.5).[46] Rhythm A, a *deśītāla* ('*turangalîla*'), is transformed into A^+ by the added semiquaver after the final value. Conversely, rhythm C is not a *deśītāla*; with the final semiquaver added, however, it becomes C^+, which is a *deśītāla* ('*candrakalâ*'). In the middle column, Messiaen links together two modified *deśītāla*s (retrograded '*vasanta*', retrograded and subdivided '*râgavardhana*'), through one added semiquaver. In this succinct table, therefore, the added-value principle emerges from the *deśītāla*s, transforms the *deśītāla*s, and mediates between *deśītāla*s. Yet, curiously, any mention of the *deśītāla*s by name or source is omitted – an early example of Messiaen's coy, sometimes misleading rhetorical style, of which more will be said later.

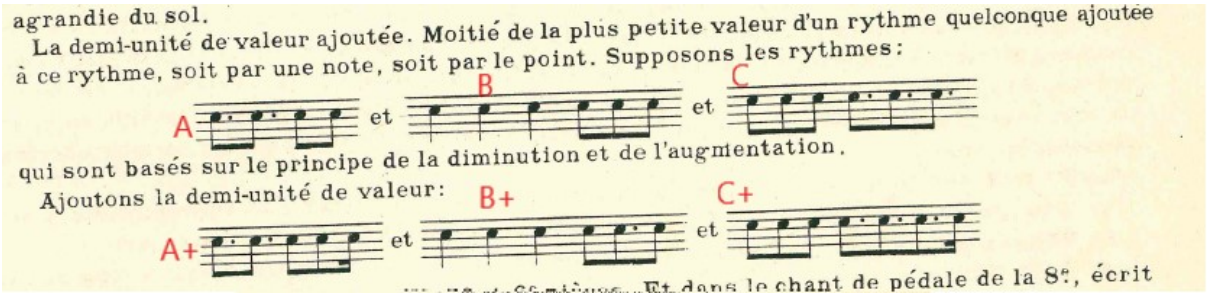


Figure 8.5: From Messiaen, 'Note de l'auteur', *La Nativité du Seigneur*; with letters added by the author. Rhythms A, B, B+, and C+ are *deśītāla*s. Rhythms A+ and C are derivations.

[45] Alas, study of the sketches makes the connection to '*bhagna*' explicit (Appendix D, 2a–2b, 2f). Similarly, where Sherlaw Johnson reads '*laksmiça*' in the opening of 'Dieu parmi nous' (50), Olivier Latry and Loïc Mallié read '*rangapradîpaka*' (172). I am partial to Sherlaw Johnson's reading, by which Messiaen distorts the *deśītāla* more subtly; but both *deśītāla*s were used by Messiaen at various points.
[46] *La Nativité du Seigneur*, 'Note de l'auteur', n.p.

Augmentation/diminution (the 1930s song cycles). If *La Nativité* represents Messiaen's exploration of the 'added value', then the two song cycles *Poèmes pour Mi* (1936) and *Chants de terre et de ciel* (1938) exhibit the flourishing of that principle. But these two cycles also contain Messiaen's earliest experiments with another pair of rhythmic principles: augmentation and diminution – sometimes exact, more often 'inexact'. The important position of these cycles for Messiaen's rhythmic development has gone underappreciated in the literature: while augmentation and diminution are already inherent in certain of the *deśītāla*s favoured in *La Nativité* (in particular, '*vasanta*', '*turangalîla*', and '*candrakalâ*'), Messiaen did not yet dissociate these techniques from their *deśītāla*s as standalone principles to apply elsewhere; in these cycles he does precisely that.[47] Two songs in which these new principles are most manifest are 'Épouvante' from *Poèmes pour Mi*, and 'Arc-en-ciel d'innocence' from *Chants de terre et de ciel*.

The focal motif of 'Épouvante' is a four-note rhythm based on two durations – a quaver and a dotted quaver (the *ajout du point* is a corollary to the *valeur ajoutée*) – followed by their exact augmentation – a crotchet and a dotted crotchet (Fig. 8.6*a*), a durational sequence characterised by the ratios 2:3:4:6. This rhythm, on the face of it, is not a *deśītāla*; however, even in the absence of sketch materials for *Poèmes pour Mi*, there are good reasons to read it as a modified '*laksmîça*'. '*Laksmîça*' is one of the handful of *deśītāla*s Messiaen copied into his sketches (Appendix D, 2h). Unmodified, it becomes one of Messiaen's favourite and most-used *deśītāla*s throughout his career. Furthermore, in *TLM*, Messiaen cites an unmodified '*laksmîça*' figure (drawn from *Chants de terre et de ciel*) as an instance of 'augmentations inexactes'. Dividing the two pairs of notes into A and B, he writes, 'B is the inexact augmentation of A; normally the F♯ should be a dotted crotchet' (Fig. 8.6*b*).[48] The opening rhythm of 'Épouvante' may therefore be conceived as a '*laksmîça*' which Messiaen reverse-engineered and 'normalised' by making the augmentation 'exact'. He did not eliminate all 'inexactitude', however: the diminution and augmentation of bars 3 and 4 are themselves inexact, disrupting the rhythmic ratios of the opening pattern and sowing instability into this musically caustic passage.

[47] Sherlaw Johnson, for example, analyses the songs essentially from a poetic perspective; Griffiths scarcely mentions rhythm in his analysis; and Halbreich does not identify any use of *deśītāla*s in *Poèmes pour Mi*.
[48] Messiaen, *TLM*, 14; 'B est l'augmentation inexacte de A; normalement, le fa dièse devrait être une noire pointée.'

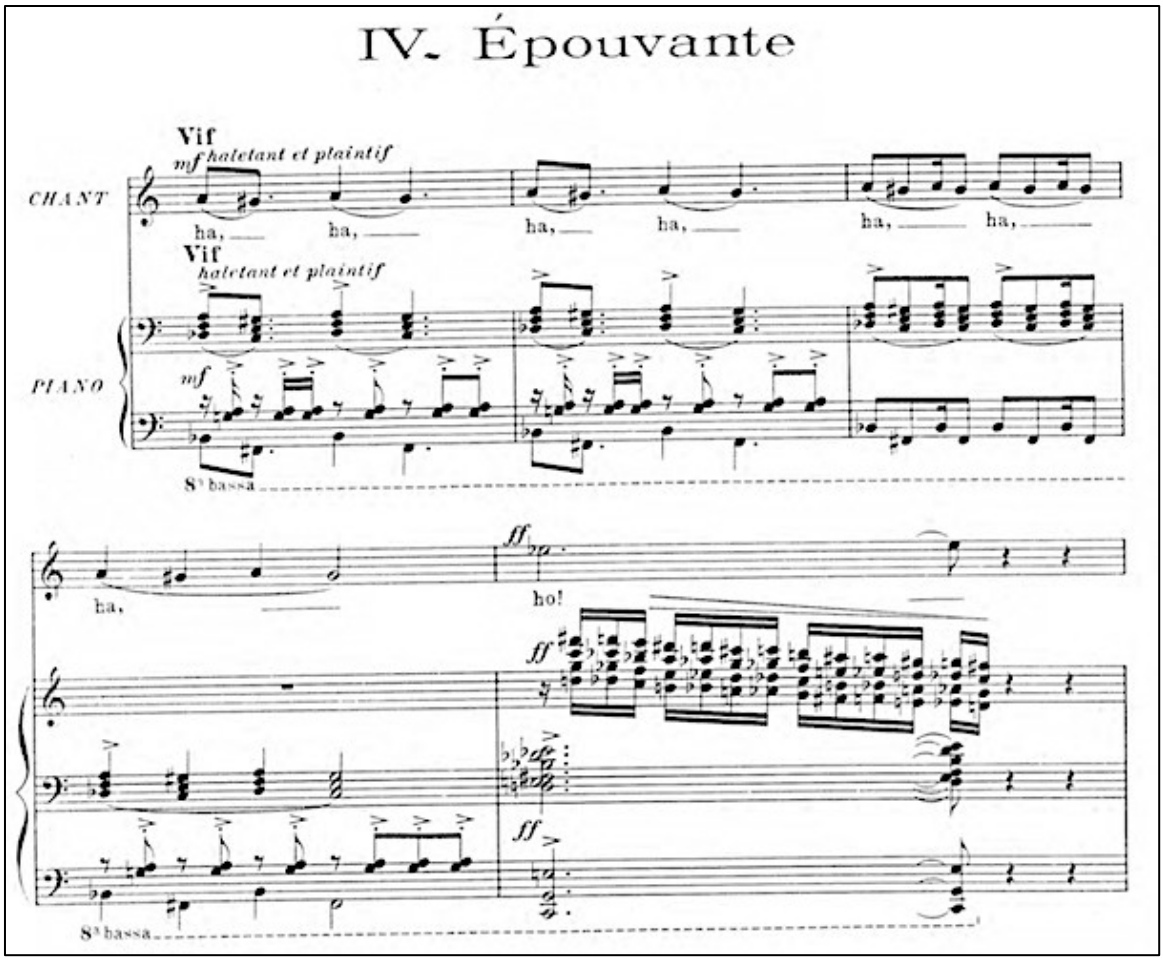


Figure 8.6*a*: 'Épouvante', from *Poèmes pour Mi*, opening

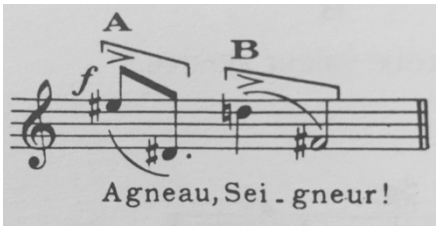
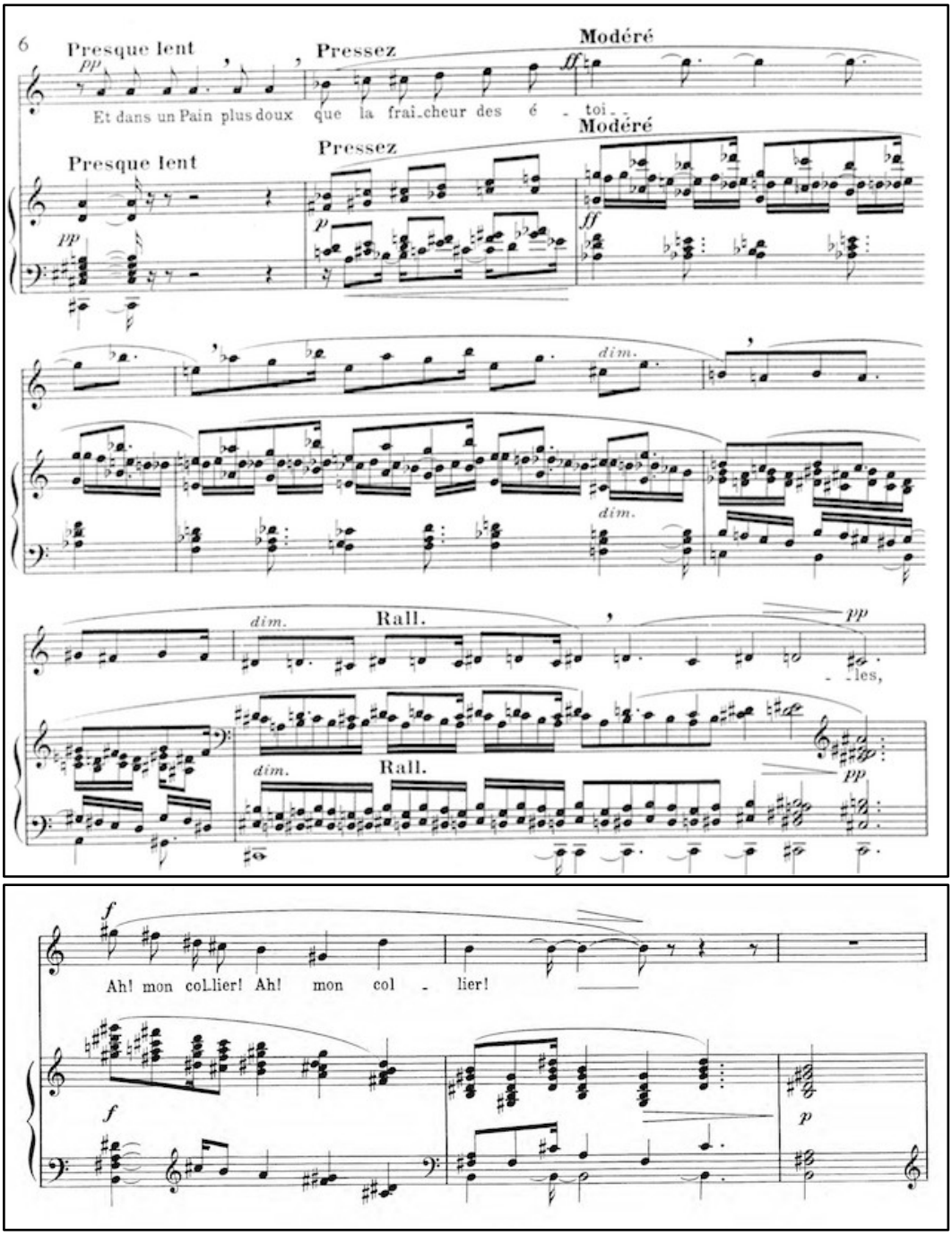


Figure 8.6*b*: '*Laksmîça*' figure as an example of 'inexact augmentation' in *TLM* (extracted from 'Minuit pile ou face', *Chants de terre et de ciel*)

Inexact augmentation can be found elsewhere in the song cycle, including in more tender moments. In the opening movement ('Action de grâces') and penultimate movement ('Le Collier'), Messiaen uses extended inexact augmentations to defuse climaxes at the end of long vocal descents, resulting in a sort of notated rallentando (Figs. 8.7*a–b*). The latter case is particularly interesting. Here, Messiaen maps the words 'Ah! Mon collier' onto the familiar



Figures 8.7*a*–*b*: Inexact augmentations defuse climactic descents in 'Action de grâces', above, and 'Le Collier', below

'*râgavardhana*', with two slight modifications: the 'added dot' on the second quaver becomes an added-value semiquaver, and the terminal dotted minim is divided into three crotchets. The effect is magnified by the repetition of the same words in the augmented rhythm. This bar is followed by another inexact augmentation in the piano/orchestral part, echoing the vocal gesture and expanding the cadence. The modification of '*râgavardhana*' transforms the

second half of the *deśītāla* into an inexact augmentation of the first half, foreshadowing how Messiaen would later use that *deśītāla* most frequently;[49] but most important, it is another instance in which Messiaen adapts one *deśītāla* to conform to a principle derived from another *deśītāla*, dissolving the rhythms into their structures.

In 'Arc-en-ciel d'innocence', the fourth song from *Chants de terre et de ciel*, the principle of augmentation blossoms further. Again, Messiaen uses augmentation to cushion a dénouement, beginning from the climactic sustained G♯ on the word 'pascale' (a pun on the name of Messiaen's newborn, Pascal, the song's dedicatee). As the soprano lands at the bottom of her descent, her quaver and dotted-quaver become the piano's crotchet, then dotted-crotchet, minims, and finally the semibreve on which the song concludes (Fig. 8.8*a*). The technique is

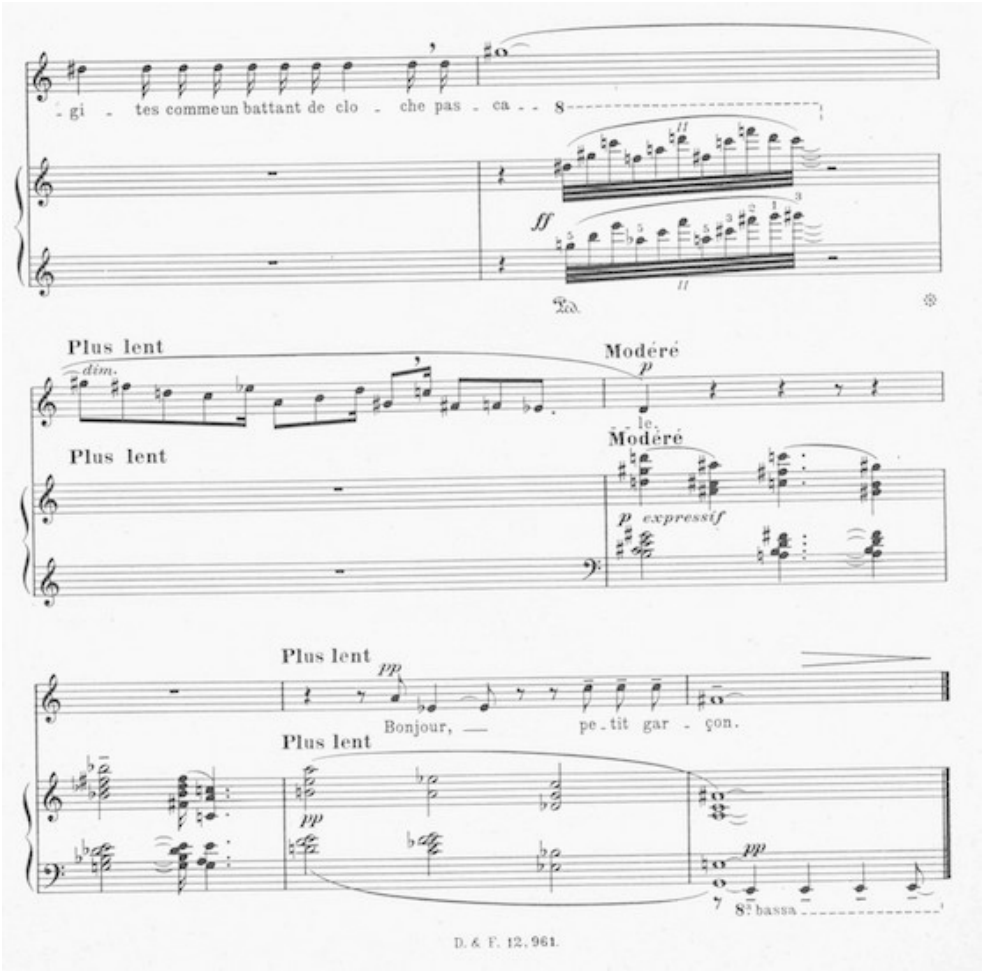


Figure 8.8*a*: 'Arc-en-ciel d'innocence', from *Chants de terre et de ciel*, final bars with inexact augmentation.

[49] See, for example, Messiaen, *TLM*, 8.

especially effective since the same chords had been used as a relatively foursquare refrain earlier throughout the song. This instance became one of two paradigmatic examples of inexact augmentation and diminution in *TLM*.[50]

'Arc-en-ciel d'innocence' is also important to Messiaen's engagements with the *deśītāla*s for another reason: it is the first composition in which Messiaen uses a specific rhythmic sequence which he continues using for the rest of his life. Messiaen later dubs the sequence, 'formula-archetype of our rhythmic passions'; in a sketch, he referred to it with four enthusiastic stars.[51] Sherlaw Johnson nicknames it 'Tâla 1'; I shall call it his 'signature'. The rhythm comprises three by-now familiar *deśītāla*s: '*râgavardhana*' (its long value subdivided as in 'Le Collier', and retrograded); '*candrakâla*'; and '*laksmîça*' (Fig. 8.8*b*). In *TLM*, Messiaen introduced the rhythm in his chapter on non-retrogradable rhythms. However, it seems likely that it sprang more directly from Messiaen's experimentation with (inexact) augmentation and diminution – the principle which unites the three *deśītāla*s of this extended pattern; having united these three *deśītāla*s by one principle, Messiaen could derive another: the principle of non-retrogradability.[52]

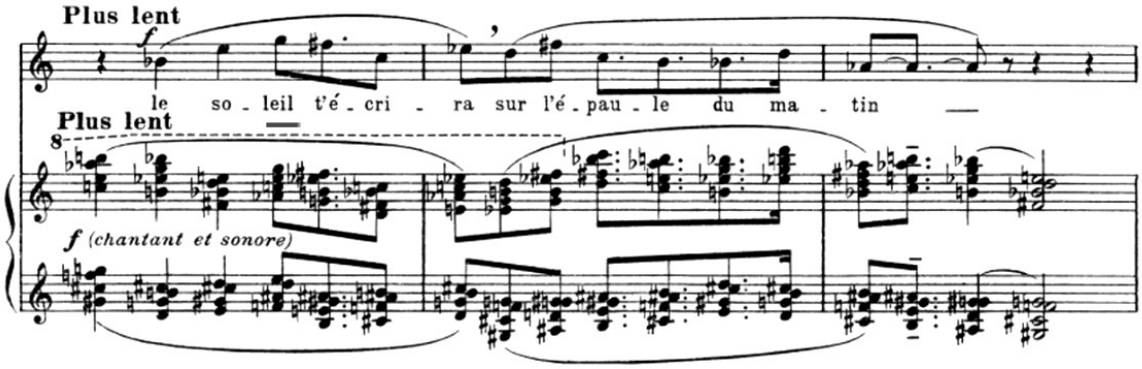


Figure 8.8*b*: 'Arc-en-ciel d'innocence', p. 18, final system, showing Messiaen's first use of his rhythmic 'signature'.

[50] Messiaen, *TLM*, 14. The other example, mentioned above, is the four-note excerpt on '*laksmîça*' from 'Minuit pile et face', the fifth song of *Chants de terre et de ciel*.
[51] E.g., F-Pn, RES VMA Ms. 1491, 68; 71; 'formule-type de nos amours rythmiques'.
[52] Recognising that Messiaen developed his rhythmic 'signature' out of inexact augmentation/diminution addresses the vexing question of why he retrograded (and subdivided) '*râgavardhana*'. Perhaps, as he retrograded the modified '*râgavardhana*', the palindromic symmetry of its shorter cell became apparent, leading him to conceive of its non-retrogradability.

Non-retrogradability (Les Corps glorieux). Although there are precedents for the palindromic organisation of time in early twentieth-century music which are not irrelevant,[53] Messiaen's particular conceptualisation of non-retrogradable rhythms appears sparked by the conjunction of a quality he observed in certain *deśītāla*s (palindromic rhythms) with a technical framework inherited from contrapuntal training (retrogradation). As with the added-value principle, Messiaen identified non-retrogradability as a structural attribute of some of the *deśītāla*s, isolated that attribute as a transformational principle, and used that principle to transform other *deśītāla*s – engendering another recursive loop and thereby transforming the *deśītāla*s into increasingly abstracted rhythmic sequences. We can trace this process of rhythmic abstraction in the third movement of *Les Corps glorieux* (1939), 'L'ange aux parfums'.[54] Discussion of this movement's debts to Indian music have largely centred upon the source of its opening melody: in *TLM*, Messiaen uses this phrase to illustrate what he calls 'la couleur mélodique hindoue' (without specifying that the passage is an extended melodic borrowing from a '*jatî*', transcribed from Śārṅgadeva in Grosset's chapter).[55] In contrast to Messiaen's interest in the *deśītāla*s as procedures rather than entities, Messiaen lifts the melodic content of the '*jatî*' wholesale, as a found object.

However, between statements of this principal '*jatî*' theme is a rhythmic episode which draws upon the *deśītāla*s procedurally and illustrates the principle of (non-)retrogradability (Fig. 8.9). The section is constructed upon three superposed rhythmic ostinati:

1. The right-hand ostinato comprises two components: (a) a crotchet plus three semiquavers – which is (or happens to be) the *deśītāla* '*catustâla*'; and (b) the *deśītāla* '*râgavardhana*', with its final duration slightly shortened. These two *deśītāla*s mirror each other somewhat, each containing one long duration and a shorter, three-note segment; the second *deśītāla* is approximately twice the duration of the first, but with a value added to the second of its short notes.
2. The left hand plays retrograde of this ostinato, introduced in a staggered 'stretto' akin to the contrapuntal experiment in Messiaen's early sketches.

[53] Some of these contexts converge in David Trippett's study of palindromic endeavours by Hindemith and Satie, situated against Bergson's (and Bachelard's) philosophical contemplations of 'duration' in response to Marey's chronophotography ('Composing Time'). While Messiaen might have strenuously denied any association with Satie, some of the relevant philosophical and media contexts are shared. Emmanuel was a student of Marey and in dialogue with Bachelard, while Messiaen was a keen reader of Bergson.
[54] No sketches or manuscript traces appear to exist for *Les Corps glorieux*; it is unknown whether they have been destroyed, mislaid, or otherwise (Marie-Gabrielle Soret, personal communication, Paris, August 2018).
[55] Messiaen, *TLM*, 35; Grosset, 'Inde', 309. See discussion in Balmer et al., 352–8. What Messiaen does admit is that in this passage 's'unissent la "valeur ajoutée" et la couleur mélodique hindoue' (*TLM*, 35).

3. The third ostinato, in the pedal, ties everything together. It is based on the extraction of the three-note initial segment of '*râgavardhana*' – itself a palindromic rhythm, as made evident in the retrogradation of the first ostinato into the second.[56] Messiaen then turns this rhythmic cell into the extended non-retrogradable ostinato by repeating it twice, first in diminution and then again at its original values. So, having thus applied the principle of non-retrogradation onto this initial rhythm, Messiaen creates a new rhythm which is related to, but no longer, a *deśītāla*.[57]

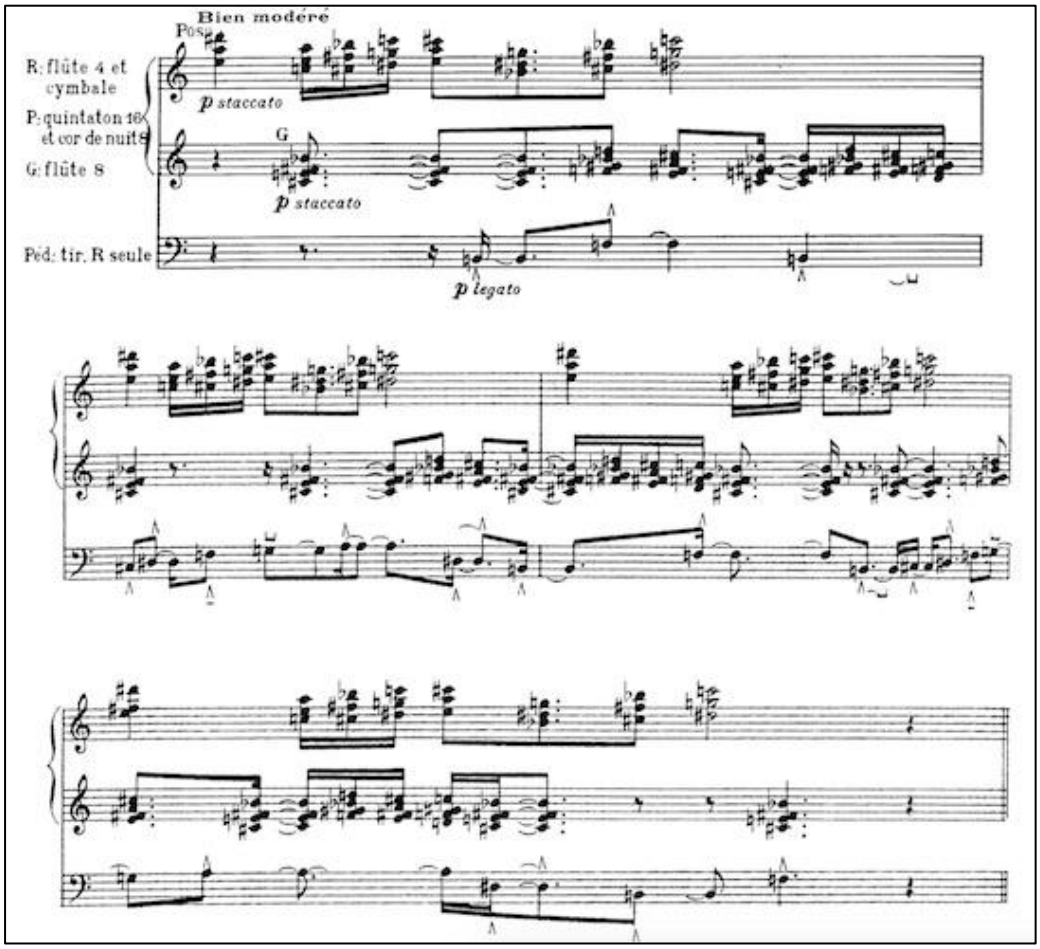


Figure 8.9: 'Ange aux parfums,' from *Les Corps glorieux*, rhythmic episode, bb. 25–8.

[56] Because Messiaen also read the three-note cell in '*râgavardhana*' as an example of the added-value principle (see *La Nativité*, ii), these three notes can be read as a convergence of the principles of added value and non-retrogradability.

[57] The three non-retrogradable cells of this newly created non-retrogradable rhythm, which are related to each other by a durational ratio of 2:1:2, might thus simultaneously be read as an extension of another non-retrogradable *deśītāla*, '*dhenkī*'. Indeed, the repeated prevalence of '*dhenkī*' throughout the fifth and sixth movements appears as a zealous exaltation of non-retrogradability.

Messiaen combines experimentation with augmentation, diminution, and non-retrogradability in the seventh movement of *Les Corps glorieux*, 'Le Mystère de la Sainte Trinité'. The pedal part performs the 'signature' rhythm discussed above (to the final '*laksmîça*' is appended an even longer final value, extending the augmentation effect); the same sequence of notes is repeated with each cycle, such that the notes become attached to their durations and positions within the rhythmic pattern. In the left hand, which structures the bar lengths, Messiaen devises a non-retrogradable rhythm with an added terminal cadence. Both this rhythm, and the 'signature' in the pedal, cycle throughout the movement (with slight modifications to the left hand creeping in toward the end); the right hand adorns the rhythmic layers with gentle melodic contours, mostly in semiquavers. We might be tempted to read this movement, with its cyclical pedal part, as a sort of passacaglia; however the utter independence of the upper parts from the bass belies this interpretation. The effect of the rhythmic patterning is made somewhat austere by the absence of harmony, in contrast to 'L'ange aux parfums'.

The fact that the '*jatî*' borrowings in *Les Corps glorieux* retained, for Messiaen, the 'Hindu melodic colour' of its source, while the *deśītāla*s, abstracted as procedures, did not, is revealing of an affective difference between Messiaen's borrowing of 'objects', and his derivation of technical procedures. This distinction would become more pronounced toward the end of the following decade: only as Messiaen began borrowing the *deśītāla*s more concertedly as entities, rather than as techniques, did he begin to associate them, too, with exoticist ideas of 'Hindu' symbolism.

Consolidation and rationalisation in the 1940s. Messiaen reportedly concluded *Les Corps glorieux* the week before he was called to the French army in World War Two. His famous wartime work, the *Quatuor pour la fin du Temps*, took shape at the Stalag-VIIIA prisoner-of-war camp outside the German town of Görlitz. Messiaen wrote compellingly about the quartet's genesis, its theological arc (specifically with regard to its illustration of passages from the Book of Revelation), and the extraordinary tale of its premiere.[58] However, research by Rebecca Rischin and more recently Yves Balmer complicates Messiaen's long-held narrative of how the work coalesced inside the Stalag: as is increasingly clear, the *Quatuor* was composed as disparate units, largely prior to Messiaen's capture, with no

[58] For an account largely adhering to Messiaen's, see Pople, *Messiaen: Quatuor pour la fin du Temps*, 7–14.

overarching programme in mind.[59] In particular, Messiaen had originally set the first movement, 'Liturgie de Cristal', for three flutes, celesta, and xylophone; while the sixth movement was explicitly conceived as a 'rhythmic study', before Messiaen dressed it up as 'Danse de la fureur, pour les sept trompettes'.[60] Offering these revised accounts of the *Quatuor*'s conception does nothing to diminish its miraculous history: on the contrary, Messiaen's adaptation of musical materials testifies to tremendous creative resilience amid his precarious soldierly existence (even as his narrative of the work's Biblical inspiration, and of its premiere with five thousand spectators and a three-stringed cello, offers another example of his careful self-fashioning).

In light of the fact that Messiaen was working on these two movements independently of any 'Quartet', it makes sense that they follow the trajectory of his rhythmic experimentation in *Les Corps glorieux* – particularly with regard to the combination, by juxta- and superposition, of diverse rhythmic techniques.[61] Like 'Le Mystère de la Sainte Trinité', 'Liturgie de cristal' superposes a non-retrogradable pattern (in the cello) over the rhythmic 'signature' (in the piano).[62] Meanwhile, the violin and clarinet fill in the texture above these two rhythmic layers, like the right hand of 'Le Mystère'. However, 'Liturgie de cristal' extends the experimentation further: unlike 'Le Mystère', the piano's chord sequence is of a different length to the durational sequence, creating parallel overlapping cycles of various parameters and new permutations; furthermore, the length of the movement is not determined by the realignment of these cycles, instead cutting off 'arbitrarily', as Sherlaw Johnson described it.[63]

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[59] Rischin, *For the End of Time: The Story of the Messiaen Quartet*; Balmer, 'Listening in Görlitz'. It was always known that the fifth and eighth movements were adaptations of previous works (*Fête des belles eaux* and *Diptyque*, respectively). The third movement was composed for Henri Akoka prior to their arrival in Görlitz. Balmer's research into sketches for the *Quatuor* have revealed that the first and sixth movements were largely composed while Messiaen was working at the 'Centre théâtral et musical', with radically different programmes and instrumentations in mind. It was only an eleventh-hour decision to present the quartet as eight unified movements.

[60] Balmer, 'Listening in Görlitz'.

[61] It is worth recalling that the *Quatuor* was premiered, and performed in Paris, before *Les Corps glorieux* was publicly performed.

[62] I have been unable to determine any source of the cello's non-retrogradable rhythm, which Sherlaw Johnson refers to as 'Tâla 2'. In *TLM*, Messiaen notes that the four semiquavers at the midpoint of this rhythm are 'in reality a semibreve, subdivided' (26); this type of curious comment often signals the presence of a borrowing (why else should the rhythm have a 'real' or 'original' form, other than that in which it appears in the work, unless it has a source elsewhere?).

[63] Sherlaw Johnson, *Messiaen*, 63. See Pople, *Messiaen: Quatuor pour la fin du Temps*, 20–6, for a description of how this procedure is constructed and expanded. Pople calculates it would take roughly 230 minutes for the cycles to realign (26). Sherlaw Johnson reads this movement as exemplifying a '"modal" use of rhythm', insofar as the rhythm provides the movement's 'colouration' rather than its 'structure', and suggests that this movement therefore adumbrates 'Mode de Valeurs'. However, I would argue that the one-to-one correspondence of note and duration in 'Le Mystère', as well as the structural determination by the cycle, provides in fact a more apt

Meanwhile, the *Quatuor*'s sixth movement, 'Danse de la fureur', exhibits the most dramatic deployment yet of rhythmic techniques, abstracted from their *deśītāla* sources. The movement is entirely ametrical. The first section (reh. A until F) is saturated with added half-units of value. In the second section (reh. F–H) Messiaen once again composes pitch and rhythm sequences in parallel, superimposing a string of sixteen notes over fifty-seven durations; these fifty-seven durations comprise seven non-retrogradable cells. These cells bear no relationship to any specific *deśītāla*s; however, they are loosely related to each other, as the durations shorten (or inexactly diminish) and the values are subdivided. In the final section (reh. I–N, after which follows a coda), the intensity grows, and Messiaen toys with augmentation and diminution of the short, non-retrogradable *deśītāla*, '*dhenkī*'. Thus all three of the aforementioned principles are juxtaposed in a rhythmic panoply befitting the rhythmic 'study' of this movement's initial conception.

Messiaen continued exploring rhythmic superpositions in *Visions de l'Amen* (1943) and *Trois petites liturgies de la présence divine* (1944). However, rather than identifying familiar conceits in these new contexts, I wish to skip ahead to *Vingt regards sur l'enfant-Jésus* (1944), in order to analyse what I view as a decisive breakthrough toward rhythmic rationalism – that is, the use of systematic procedures as a basis of determining or regulating formal compositional processes. This breakthrough emerged from an optimisation of the principle of inexact augmentation. The climax of the eleventh movement, 'Première communion de la Vierge', consists of clocklike bells in crotchets preceded by grace-note chords, fortissimo in a high octave. After seven emphatic crotchets, the grace-note expands to a quaver, while the crotchet remains; the following bar, the quaver is dotted; then, it expands to a crotchet tied to a semiquaver, for a total of five semiquaver units; then seven; then eleven. After these bars of 'inexact augmentation', Messiaen formalises the procedure – not by rendering the augmentation exact (as in 'Épouvante'), but by rationalising its inexactitude. Starting with two durational values – one and three semiquavers – he increases each duration by one semiquaver until the first value lasts 13 semiquavers (Fig. 8.10*a–b*).

precedent. If anything, the 'Liturgie de cristal,' especially with the metallophones originally envisaged, more keenly foreshadows the rhythmic pedals led by the percussion instruments in the *Turangalîla-Symphonie*.

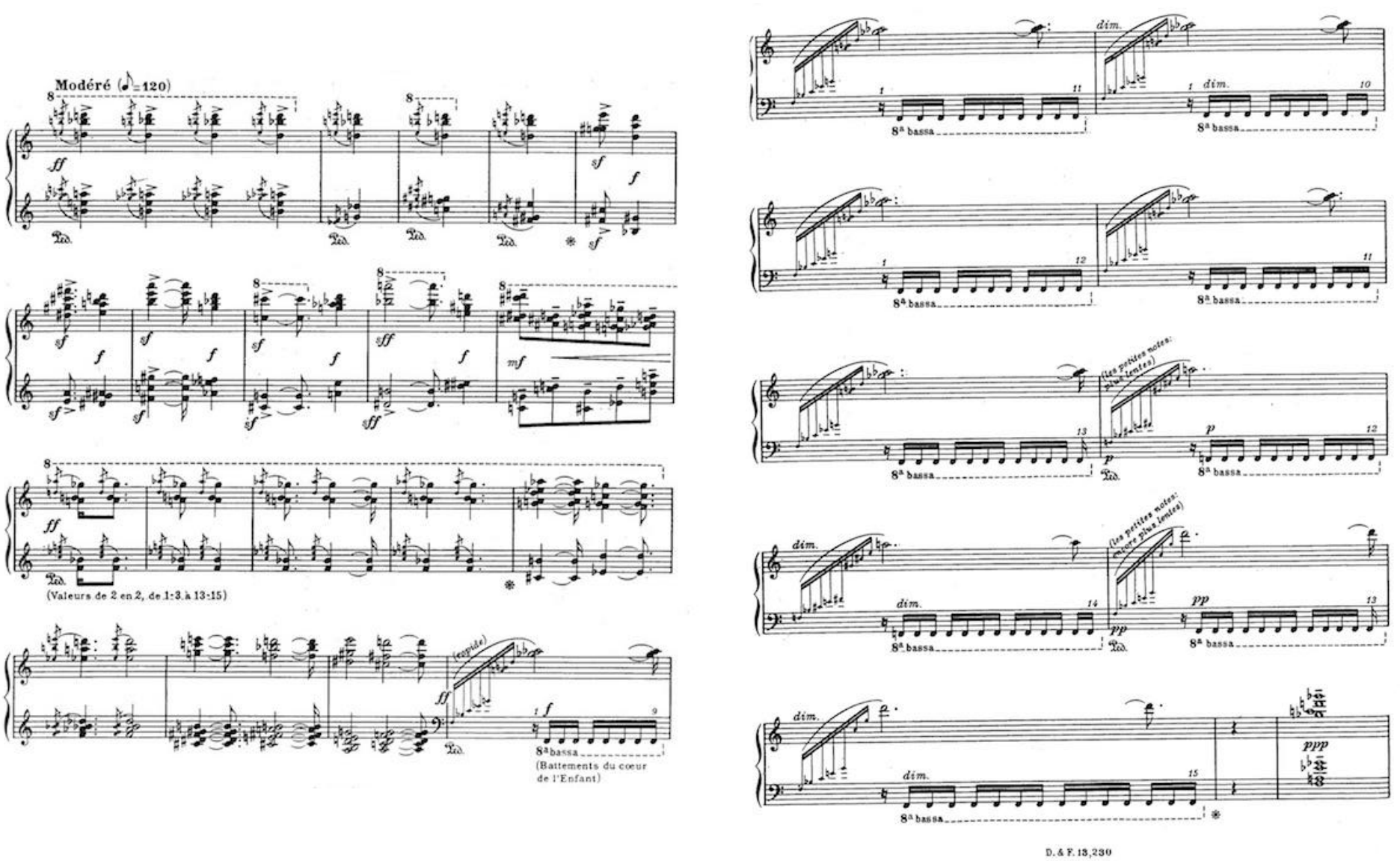

Figure 8.10*a–b*: ‘Première communion de la Vierge’, from *Vingt regards sur l’enfant-Jésus*, pp. 81–82.

We see here, therefore, Messiaen's most systematic and extended rationalist formalism to date, using numerical values to optimise a principle of rhythmic transformation familiar from the *deśītāla*s. The specific technique Messiaen develops here is identical to the numerical procedure at the bottom of page 53 of the 'Cahier Vert' (see again Appendix D). Given that Messiaen used the 'Cahier Vert' for many of his sketches for *Vingt regards*, including pages in the 60s–70s, Messiaen might have gone back to page 53 and sketched this scheme into available space at the bottom of that page. It is plausible that Messiaen revisited earlier sketch pages while composing *Vingt regards*, and in particular 'Première communion de la Vierge', which contains a quotation from 'Le Vierge et l'enfant', a thematically related movement from *La Nativité du Seigneur*.[64] And it may be noteworthy that he developed this procedure on a page bearing the definition of the 'added value principle', his first and fundamental engagement with *deśītāla* principles.

The relationship between the principle of inexact augmentation and the rhythmic rationalism in 'Première communion de la Vierge' is clarified as the initial inexactitude gives way to its formal idealisation in real time. In 'Regard de l'onction terrible,' a similar rationalised procedure is presented – this time in isolation. The movement opens with a descending chordal cascade in the right hand, adding one semiquaver unit of duration to each chord until a final landing the length of a semibreve. Simultaneously, the left hand mirrors this procedure, ascending, and shortening the durations of its chords from sixteen semiquaver units to one (Fig. 8.11). In the coda, the entire procedure is reversed.[65] With the single use of each durational value from 1–16 in each hand, it does not seem like too great a leap to consider that these durations might be reordered (or even 'serialised', as Messiaen suggests in a sketch note from 1945 – although he does not use the term in his sketches for this conceit).[66] Messiaen

[64] Messiaen occasionally used blank spaces in his notebooks in later years. In an even more striking case, Messiaen makes reference to a 'gamme chromatique des durées' and uses the word 'interversions' earlier in this same *cahier*, amid sketches for his *Thème et variations* (6-7); however, because these terms are not echoed anywhere else in his sketches from the 1930s (Messiaen has a tendency to rehash ideas many times in close succession), they are likely later additions.
[65] For Messiaen's early sketch of this rhythmic conceit, see F-Pn, RES VMA Ms. 1491, 62–3.
[66] Quoted in Hill and Simeone, *Messiaen*, 178. Hill and Simeone interpret this note as evidence that Messiaen was considering 'total' or 'multiple serialism' far earlier than the composition of *Cantéyodjayâ* or 'Mode de valeurs', where the technique was in fact trialled. However, as has been noted, the rationalism of 'Mode de valeurs' is distinct from Viennese serialism, and to my mind it does not follow that those works were the necessary realisation of an idea sketched years earlier. Moreover, the most relevant groundwork for Messiaen's 'modal' techniques in those pieces is already in place as early as the movements of *Les Corps glorieux* and the *Quatuor* discussed in this chapter.

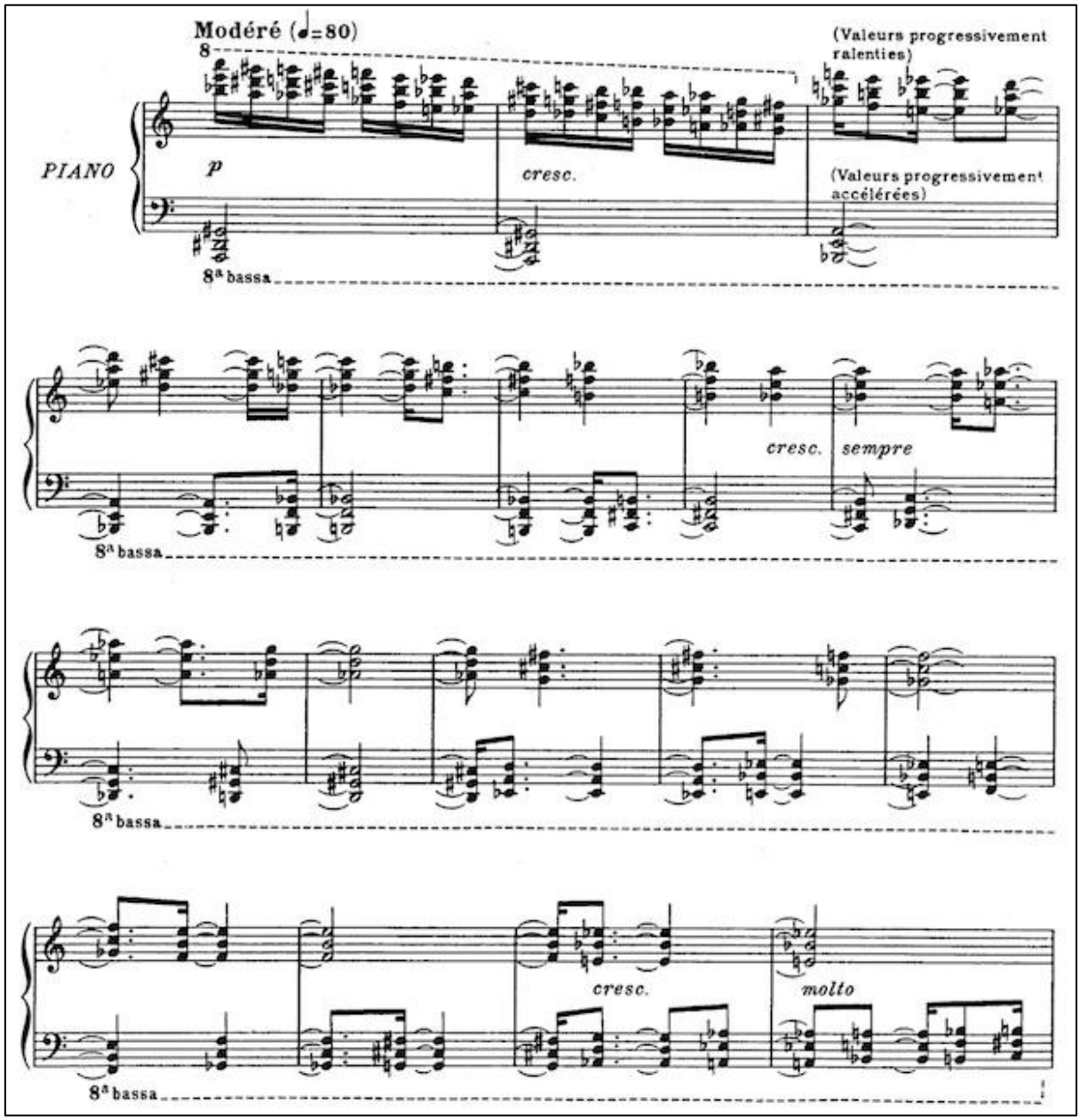

Figure 8.11: Rationalism in the opening of 'Regard de l'onction terrible', from *Vingt regards sur l'enfant-Jésus*.

would later adopt the term 'chromatic durations' to describe rhythmic sequences in which consecutive durational values increased or decreased by a unit – but the procedure appears clearly to derive from this systematically inexact augmentation/diminution. Note, in passing, the paratextual labels used to demarcate formalist procedures these two examples.

By the mid-1940s, therefore, Messiaen had developed myriad procedures for the additive 'organisation of durations', derived from his quasi-philological search for structures underlying ancient Indian rhythm. As these techniques were combined, they resembled the

*deśītāla*s less and less, even as the principles engendering this rhythmic complexity derived substantially from his analysis of them. The essential technical building blocks for further rhythmic formalism were thus well in place. They are further exemplified in his extrapolation of 'chromatic durations', beyond the 'Regard de l'onction terrible' – in *Harawi* (1945), as in 'Répétition planétaire','Syllabes', and especially 'Katchikatchi les étoiles'[67] – and even more in *Turangalîla-Symphonie* (1946–8), in which rationalised rhythmic procedures grew ever more distant from recognisable *deśītāla*s. Complex procedures grew from simpler ones, compounded and permutated: just as 'chromatic rhythms' stem from inexact augmentation/diminution, Messiaen's technique of 'personnages rythmiques' – in which juxtaposed rhythmic elements simultaneously lengthen, shorten, and remain constant – can be conceived as interposed series of 'chromatic rhythms', and can be interpreted in terms of sequences undergoing simultaneous transformations of inexact augmentation and diminution.[68] Here is not the place to detail the particulars of the rhythmic formalism in *Turangalîla*, which is highly elaborate, largely numerically determined, and has been explained by others – including Messiaen himself, who emphasised the presence of such numerical procedures in his own analysis.[69] Julian Hook has catalogued several of the complex rhythmic systems in *Turangalîla*; the tentative designation 'possibly Indian-derived' with which he annotates one of these patterns is evidence of the liminal area between the *deśītāla*s and the rationalised rhythmic procedures that emerge as they degenerate, and his uncertainty is perhaps more perspicacious than he realised.[70] Meanwhile, extant sketches for the symphony show fewer references to *deśītāla*s than those for any of the works yet discussed. Yet just as the *deśītāla*s reach this 'vanishing point'[71] of abstraction and assimilation, Messiaen affirms their *presence* louder than ever: in the title of the work.[72] After

[67] On such procedures, see Messiaen, *Traité*, III, 293; 301; 310–11. In this respect I disagree with Sherlaw Johnson's claim that *Harawi* 'breaks no new ground' musically (*Messiaen*, 82).
[68] Messiaen's earliest descriptions of procedures resembling 'personnages rythmiques' take place in his idiosyncratic analysis of *Le Sacre du printemps* in terms of *deśītāla*s, augmentation, and diminution; see, e.g., Messiaen, 'Le rythme chez Igor Strawinsky' (June 1939) in Broad, 23–4, and discussed further below.
[69] See, e.g., Messiaen, *Traité*, II; Sherlaw Johnson, 82–94. Julian Hook's study, while occasionally misleading in its ahistorical assumptions, contains some illuminating observations, rendered more obvious through his condensed, 'algebraic' analytical style; see especially the Appendix ('Rhythm in the Music of Messiaen'). See also, Balmer et al., *Le modèle et l'invention*, 513–28, for an analysis of 'Turangalîla I' which shows how Messiaen's analytical emphasis on his rationalist procedures concealed the presence of borrowed materials.
[70] Hook, 'Rhythm in the Music of Messiaen', 115–20, esp. 118.
[71] Nicole Grimes defines the 'vanishing point' for music-analytical purposes as that which is 'mostly unseen, and yet it gives rise to that which is seen.' ('Brahms as a Vanishing Point in the Music of Wolfgang Rihm', 541).
[72] The final title for the symphony bloomed late (Hill and Simeone, 171–3). For much of the work's gestation, Messiaen denoted it *Symphonie-Tâla*, which would have been a more generic reference to 'Indian rhythm'. At other moments, he was toying with the title *Kheyâla–Mâruta–Tâla*, noting that 'Kheyâla = chant d'amour. Mâruta = souffle. Tâla = rythme', and labelling individual movements accordingly with one term or the other (F-Pn, RES VMA Ms. 1539, 142; 181. The term 'Kheyâla' is defined by Grosset, 'Inde', 338). When three

all, 'turangalîla', whatever one takes its Sanskrit meaning to be,[73] is the name of a *deśītāla* – perhaps even the first one Messiaen recopied in his 'Cahier vert'. This apparent irony reflects Messiaen's rhetorical shifts over the 1940s, and gestures toward the contrapuntal narrative to which I now turn.

(Not) talking about the deśītālas.

An important theme of this thesis has been the role of composers' rhetoric in advancing their compositional agendas through discursive constructions or performances. Messiaen, too, developed (or inherited) these rhetorical strategies, writing prolifically about his music throughout his career and carefully managing the presentation and reception of works via programme notes, treatises, or explanatory notes accompanying scores.[74] He skilfully framed compositional decisions with commentary, amplifying certain qualities or suppressing others, and sometimes contradicting himself in the process. To such texts can be added Messiaen's journalistic coverage of the music of his peers, which was particularly active during the late 1930s and has been collected by Stephen Broad.[75] Messiaen's rhetoric around Indian music in particular oscillated along a range between two poles – either suppressing the *deśītāla*s' presence in favour of a technical lexicon (performing formalism), or spotlighting their presence through flamboyant displays of Sanskrit words and labels (performing exoticism). Yet these contrasting discursive tactics do not neatly correspond with compositional evidence, and thus offer a compelling counternarrative. From the available evidence, Messiaen appears to have begun publicly discussing the *deśītāla*s only several years after he began experimenting with them; his invocations of the *deśītāla*s then grew over the 1940s, peaking (in compositional contexts) around the end of the decade. If it is difficult to surmise what drove Messiaen's rhetorical vicissitudes, retracing these compositional practices against the grain of his paratexts helps us to deconstruct discourses of 'exoticism' and 'formalism' that have effectively obscured the link between Messiaen's *deśītāla*s and his hyperrationalism.

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individual movements were performed in Paris (prior to the Boston premiere), they were titled *Trois Tâla*. In the end, the three movements in which Messiaen's rhythmic procedures are most austerely presented bear the titles 'Turangalîla 1', '2', and '3'.

[73] Messiaen provided a variety of meanings for the title: in the work's early years, it was often glossed in the press as an 'Indian word for love song', and even as 'a girl's name' (ee Simeone, 'An Exotic Tristan in Boston'). In later decades, Messiaen tended to reply that *lîla* represented 'the life force, the play of creation, rhythm, and movement', while *turanga* meant something akin to 'tempo' (Goléa, *Rencontres avec Olivier Messiaen*, 84).

[74] On Messiaen's 'authorial paratexts', see Balmer, 'Entre analyse et propagande', 27–30.

[75] See Broad, *Olivier Messiaen: Journalism 1935–1939*.

In the mid-1930s, Messiaen's paratextual explications of his rhythmic experimentation were described not in relation to the *deśītāla*s, but rather through his own technical coinage. This can be observed already in *La Nativité*, for which Messiaen began his practice of publishing technical details regarding his compositional process alongside theological notes. At the work's premiere (27 February 1936), Messiaen distributed a leaflet explaining the techniques used 'at the service of the dogmas of Catholic theology'; among them were 'rhythmic means: rhythms immediately preceded or followed by their augmentation and sometimes increased by a short note-value (half the added value).'[76] The programme note accompanying 'Les Anges' displays a similar technicity,[77] as does the more elaborate foreword published with the score, discussed above. The abstract explanation of his rhythmic style in these sources mirrors that of his modes, described by their limited number of transpositions rather than in relation to any historic or geographical inspiration or provenance. However, sketches reveal Messiaen struggling to decide whether to describe his rhythms with reference to technical properties or Indian sources. In earlier plans for this foreword, Messiaen wrote: 'Say perhaps in preface: these modes [of limited transposition] are unrelated to the great modal systems already known (Greek, plain-chant, China, India) / And also: in the 4th and 8th movement use of the distinctive rhythm...which is none other than the râgavardhana of the Hindus.'[78] Above this, he notated four *deśītāla*s with their durations in semiquaver units. Ultimately, however, he crossed out the entire page, sanitising his rhythms of any Indian trace (Fig. 8.12). Messiaen's ambivalence reveals a self-conscious performativity which recalls the hesitations of Roussel and Emmanuel (discussed in Chapter 7). The categorical distinction between his modes and those of other times and places constitutes a performance of originality; perhaps he concluded that the value of originality outweighed that of affiliating with 'Hindu' music. Or perhaps he was conscious of the extensive modifications he had made to the *deśītāla*s and felt uncomfortable labelling his rhythms as such. In the programme note accompanying the premiere, Messiaen wrote that the form of the cornet solo in 'Le Verbe' was 'related to Hindu

[76] Quoted in Hill and Simeone, 59.
[77] The programme note is reprinted in Susan Landale, 'Olivier Messiaen', 17–20.
[78] F-Pn, RES VMA Ms. 1954(1-2), 4; 'Dire peut-être dans avant-propos: ces modes n'ont aucun rapport avec les grands systèmes modaux déjà connus (grecs et plain-chant, chine, inde) / Et aussi: dans 4e et 8e pièce emploi du rythme caractéristique… qui n'est autre que le râgavardhana des indous'.

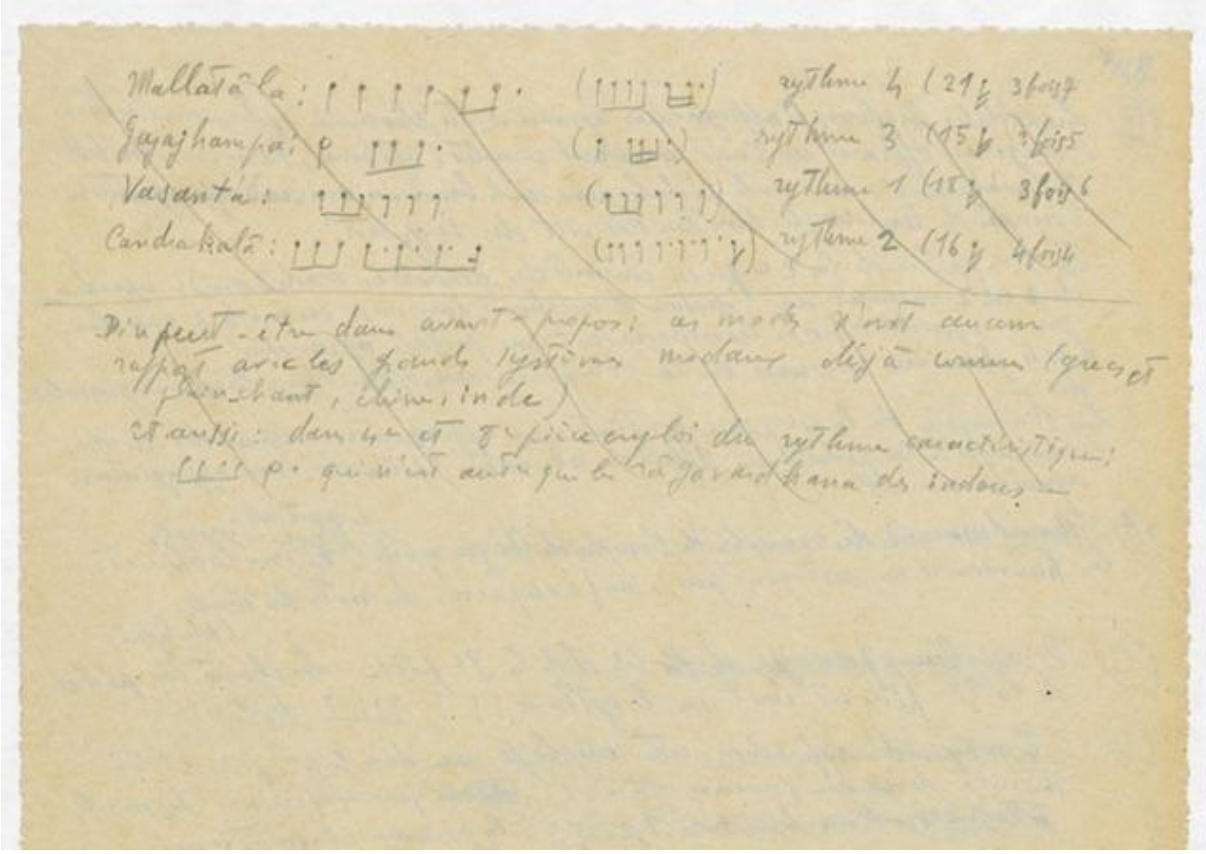

Figure 8.12: Notes for *La Nativité du Seigneur*, preface, showing Messiaen's decision not to discuss the *deśītāla*s.
(*Source: F-Pn, RES VMA Ms. 1954*)

râgas, to sequences and graduals of plainchant, and to ornamented chorales of J. S. Bach.'[79] He therefore does not suppress the 'Indianism' of his work outright, alluding to a specific moment of borrowing; rather, he appears (for now, at least) to more pointedly suppress the role of Indian music in undergirding his generalised technique.[80]

[79] Landale, 18. 'la forme s'apparente aux râgas indous [sic], aux séquences et graduels du plain-chant, aux chorals ornés de J.-S. Bach.'

[80] The irony is that there appears hardly any discernible relationship between the cornet solo and any notion of 'Hindu râgas' in Grosset's article. While two earlier drafts of the cornet solo show his intention to use a Carnatic mode (F-Pn, RES VMA Ms. 1491, 58; Ms. 1554, 10), these ideas are replaced by the final version, which is melodically based on the *Victimae paschali* chant (from the Easter Sunday Sequence) assimilated to mode 2^2 of limited transposition (The *Victimae paschali* is reprinted in Latry and Mallié, *L'œuvre d'orgue d'Olivier Messiaen*, 149. The authors attempt to reconcile Messiaen's description of the melody with his aesthetic understanding of *râga*, however I do not find the explanation convincing.) The reference to 'Hindu râgas' here therefore seems misleading, even as Messiaen doubles down on the assertion that the melody is related to 'Hindu râgas' by its 'character', in *TLM* (59).

Meanwhile, the frequency and tenor with which Messiaen referenced Indian 'modes' in his music criticism during this period testifies to his intense interest.[81] In addition to praising 'modes hindous' in compositions by Roussel, Migot, Tournemire, and Langlais, Indian music served as a sort of by-word for 'avant-garde'. In his tirade against the 'laziness' of contemporary Parisian concert audiences, he asks, 'if they heard pure plain chant, or authentic Hindu râgas, might they whistle?'; in another 1936 article, he taunts, 'Would our contemporary music, unmatchable in the vast realm of counterpoint, of timbres, of instrumentations, let itself be surpassed by the rhythms and modes of ancient Greek and Indian songs?' In this vein, he even describes in these terms the quarter-tone music of Ivan Wyschnegradsky – referencing the Indian use of quarter-tones 'as everyone knows' – suggesting just how topical Indian modes had become.[82] Whether the frequency of Indian music in Messiaen's journalism is a reflection of prevailing predilections, or rather an attempt to manufacture such tastes within his milieu, would require further analysis; perhaps it is some of both.

Further cuttings illustrate changes in his rhetorical stance between 1936 and 1939. The month before the 1936 premiere of *La Nativité*, Messiaen published an article in the *Tablettes de la Schola Cantorum* alluding to his rhythmic designs in exclusively technical terms (as in the programme notes and preface);[83] nor is there mention of Indian rhythm in the reviews of critics like André Cœuroy, a close advocate of Messiaen's.[84] By 1939, however, Messiaen revisited *La Nativité* in an article for *L'Art sacré*, in which he explained the work's 'language': 'Despite certain affinities with Hindu rhythm and plainchantesque freedom, despite certain Debussian or Stravinskian chords, it is characterised above all by the harmonic use of "modes of limited transposition" on one hand, and by the rhythmic use of the "half-unit of added value" on the other.'[85] Here is an early instance of what becomes a signature

[81] Of the 38 articles reproduced in Broad, *Olivier Messiaen: Journalism*, ten include references to Indian music in some way (although none suggest that Messiaen had first-hand experience hearing Indian music).
[82] Messiaen, 'Contre la paresse' (1939), in Broad, *Olivier Messiaen: Journalism*, 69 ('S'ils entendaient du plain-chant pur, d'authentiques râgas indous, peut-être siffleraient-ils?'); 'La Transmutation des enthousiasmes' (1936), in Broad, 62 ('Notre musique contemporaine, inégalable dans le vaste domaine du contrepoint, des timbres, de l'instrumentation, se laisserait-elle dépasser par les rythmes et les modes des chants antiques de la Grèce ou de l'Inde?'). Suggestively, in 1938 Messiaen composed his own 'Deux monodies en quarts de ton' for ondes Martenot, which were never published and contained no further reference to Indian modality specifically.
[83] See Broad, *Olivier Messiaen: Journalism*, 71.
[84] For Cœuroy's review, and for more on the relationship between Cœuroy, Messiaen, and the collective of composers known as La Jeune France, see Simeone, 'La Spirale and La Jeune France', esp. 14–17.
[85] Messiaen, 'Autour d'une Œuvre d'orgue' (April 1939), in Broad, *Olivier Messiaen: Journalism*, 74; 'Malgré quelques affinités avec la rythmique indoue et la liberté plain-chantesque, malgré quelques accords debussytes

rhetorical tactic of Messiaen's: to signal the presence of borrowed musical materials obliquely, suggesting 'affinity' or resemblance as though coincidental, rather than declaring a source – an affiliation without filiation, established through a form of apophasis.[86]

Later that month, Messiaen again invoked Indian rhythm, defending his style following the premiere of *Chants de terre et de ciel*:

> Still in place as well are my habitual rhythms, based on the 'half-unit of added value', on augmentation, on the absence of metered bars, offering a very simple but not at all conventional use of durational values. Besides, I am not alone. My models were: first Debussy, then plainchant, and then the work of the admirable 13th-century Hindu rhythmician, Śārṅgadeva.[87]

Again, Messiaen's disclosure of the relationship between his rhythms and the *deśītāla*s is partial – Śārṅgadeva figures alongside Debussy as a precedent legitimating his experimentation. In June 1939, Messiaen published an article on rhythm in Stravinsky, in which he analysed 'Glorification de l'élue' and the 'Danse sacrale' from *Le Sacre du printemps* in terms of a *deśītāla*, and foreshadowed the formal technique he would later call 'personnages rythmiques': 'In the series of Hindu rhythms left to us by Śārṅgadeva, we find the rhythm *simhavikrîdita*, which is the application of the following procedure: augmentation and diminution of every other value… Stravinsky expanded this procedure considerably by transforming it into the augmentation or diminution of every other rhythm.'[88] Here, Messiaen does not suggest any relationship between his own music and the *deśītāla*s; but in affiliating Stravinsky's techniques, Debussy, and plainchant with Śārṅgadeva, he builds a solid foundation – on two canonical avant-gardists and one venerable corpus of musical heritage – to bolster his own forays. Note, too, how Messiaen's description of '*simhavikrîdita*' offers no description of the *deśītāla* itself, but instead of the underlying structure he believes it

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ou strawinskystes, il se caractérise surtout par l'emploi harmonique des "modes à transpositions limitées" d'une part, et par l'emploi rythmique de la "demi-unité de valeur ajoutée" d'autre part.'

[86] For another example, see, e.g., Balmer et al., *Le modèle et l'invention*, 342. This rhetorical technique may characterise Messiaen's claim about his modes of limited transposition, discussed in Chapter 7, conclusion, above.

[87] Messiaen, 'Autour d'une parution' (30 April 1939), in Broad, *Olivier Messiaen: Journalism*, 59; and Hill and Simeone, Messiaen, 82; 'Toujours au poste, également, mes rythmes habituels, basés sur la 'demi-unité de valeur ajoutée', sur l'augmentation, sur l'absence de mesures chiffrables, offrant un emploi très simple et pas du tout conventionnel des valeurs de durée. Je ne suis d'ailleurs pas tout seul. Mes modèles ont été: Debussy d'abord, et puis le plainchant, et encore l'admirable rythmicien indou du 13e siècle, Çârngadeva.'

[88] Messiaen, 'Le rythme chez Igor Strawinsky' (June 1939) in Broad, *Olivier Messiaen: Journalism*, 23–4; 'Dans la série des rythmes hindous que nous a laissés Çârngadeva, on trouve le rythme *simhavikrîdita*, qui est l'application du procédé suivant: augmentation et diminution d'une valeur sur deux… Strawinsky a considérablement agrandi ce procédé en le transformant en l'augmentation ou diminution d'un rythme sur deux.'

embodies – further evidence of his early tendency to view this rhythmic collection procedurally.

With these increasingly suggestive admissions, Messiaen's interest in Indian music was becoming familiar to critics. Paul Bertrand, reviewing *Poèmes pour Mi*, characterised Messiaen's 'great stylistic freedom: no bar lines, a modal language oscillating between plainchant and Hindu music, irregular rhythms following the natural patterns of the words, and vocal writing where psalmody alternates with an expressive vocalise.'[89] Later that year, Daniel-Lesur wrote positively of Messiaen's theological inspiration 'curiously allied with a musical language based on Hindu scales.'[90] In a glowing review of the Paris premiere of the *Quatuor*, Serge Moreux described the work as the 'most striking piece of chamber music heard in Paris since the performance of the last quartet by Schoenberg. Why is it so striking? Because it employs a melodic and metrical language which is both original and *organized*, born of meditations on ancient Greek metre and Hindu modality.'[91] The emphasis in these reviews on Indian 'modality', as opposed to rhythms, is curious, given Messiaen's thorough use (and discussion) of his 'modes of limited transposition', which are incommensurable with the Indian modes as then conceived in French musical circles. Ultimately, however, the misnomer might have served Messiaen well, insofar as the affiliation with India remained positive in the music criticism. The choice adjective, 'organised', in Moreux's review of the *Quatuor*, portrays Indian modes in contradistinction to archetypically unbridled 'exoticism', sharing more in common with Apollonian notions of classical 'order' that French musicians had long embraced.

While broad-brush associations between Messiaen and Indian music circulated in the late 1930s and early '40s, it seems to be during the preparation of *TLM* that Messiaen concertedly identified the importance of Indian rhythms. In May 1942, by which point Messiaen had undertaken significant work on the treatise,[92] he granted an interview to Armand Machabey for an instalment of the latter's 'Galerie de quelques jeunes musiciens parisiens' in *L'Information musicale*. Commenting on Messiaen's artistic and religious philosophy,

[89] Paul Bertrand, *Le Ménestrel* (May 1938); quoted in Hill and Simeone, 77.
[90] Daniel-Lesur, [Jean-Yves], 'Du Fond et de la Forme', *La Revue musicale*, 186 (September–November 1938), pp. 126–30 at 130.
[91] *L'Information musicale* (11/vii/1941), p. 759; quoted in Hill and Simeone, *Messiaen*, 112–13.
[92] For clarifications on the writing process of *TLM*, see Balmer and Murray, 'Olivier Messiaen et la reconstruction de son parcours pendant l'Occupation'.

Machabey remarks that *Poèmes pour Mi* 'are written without metrical indications and with a profusion of mind-boggling rhythms which outdo Hindu theories.'[93] Again, the reference is sideways: Messiaen does not employ Indian rhythms as such, but rather 'outdoes' them; one easily imagines Messiaen feeding the formulation to Machabey. The same year, Messiaen published another guide to his musical techniques in the preface to the *Quatuor*. Following a theological commentary, Messiaen included a two-page 'Petite théorie de mon langage rythmique', in which he succinctly explained the 'valeur ajoutée', augmentation and diminution, non-retrogradable rhythms, as well as the concept of rhythmic pedals – with abundant examples.[94] As in his preface to *La Nativité*, the *deśītāla*s went unmentioned: this is a performance of formalism.

At last, in 1944, Messiaen introduced a generation of composition students to 'Râgavardhana, rythme hindou', in the second chapter (the first one containing music) of *TLM*. Here, Messiaen first contextualises the *deśītāla* with a selection of pedigreed 'musique amesurée', including Greek metre (citing Emmanuel), plainchant (citing Mocquereau), and his example from Stravinsky. He then demonstrates how his three principal rhythmic discoveries from the past decade proceed from a single *deśītāla*: '*râgavardhana*', retrograded and subdivided. On this basis, he writes:

> From these observations, which may appear anodyne, we can conclude: (1) it is possible to add to any rhythm a short value which transforms its metrical balance; (2) any rhythm can be followed by its augmentation or diminution, in more complex ways than simple, classic doubling; (3) there exist rhythms which are impossible to retrograde.[95]

The subsequent three chapters treat added values, augmentation/diminution, and retrogradation respectively, with examples from Messiaen's own œuvre, but making no further reference to the *deśītāla*s. Finally, Messiaen elaborates his procedures for the combination of rhythmic procedures via pedals and canons.

[93] Quoted in Simeone, 'Messiaen in 1942', 13.
[94] Messiaen, *Quatuor pour la fin du Temps*, ii–iv.
[95] Messiaen, *TLM*, 8; 'De ces constatations, bien anodines en apparence, nous pouvons conclure: 1.) il est possible d'ajouter à un rythme quelconque une petite valeur brève qui transforme son balancement métrique; 2.) tout rythme peut être suivi de son augmentation ou diminution selon des formes plus complexes que les simples redoublements classiques; 3.) il existe des rythmes impossibles à rétrograder.'

Balmer, Lacôte, and Murray read this chapter closely and sceptically in their discussion of rhythmic borrowing in *TLM*. They suggest that Messiaen leverages the unwitting Stravinsky to legitimate his own designs,[96] and they seize upon Messiaen's apparently unusual derivation of rhythmic procedures based upon this single, modified *deśītāla*. As they write, 'This demonstration is pseudo-logical… It does not follow from the fact that a Hindu rhythm contains an added value that one can "conclude" it is possible to append an added value to any rhythm. What Messiaen shows is in no way the result of logical or scientific reasoning, but of an artistic choice.'[97] The authors rightly contend that Messiaen's phrasing masks a more complex process of analysis, experimentation, and systematisation. By singling out one *deśītāla* and transforming it in order to display his rhythmic principles, Messiaen irons out the history of experimentation presented above, drawing a direct line where there had been many twists and turns (and several *deśītāla*s involved). His transformation and analysis of '*râgavardhana*' was not the starting point, as he intimates, but the conclusion – only after having conceptualised each of his principles could he have 'discovered' them in this transformed version of the *deśītāla*. But it feels ungenerous to imply on this basis that the connection drawn between the three rhythmic principles and the *deśītāla*s is fallacious, or to dismiss it as (merely) 'artistic'. After all, these principles emerged from a genuine search for structures in the *deśītāla*s – and, more precisely, from the friction between that analytical process and a collection of rhythms which defied structural systematisation. Messiaen's explanation may appear tautological in its claim that principles might be derived from a *deśītāla* which he has already modified in order to feature those principles. But this circularity itself reflects Messiaen's recursive imposition of principles upon the objects from which he derived those principles, and to the *deśītāla*s' dual position as transformational procedures of Messiaen's deforming prism and as borrowable objects subjected to those transformations. By demonstrating how a rhythm like '*râgavardhana*' might both undergo and generate transformational procedures, this seemingly illogical blip in fact provides a deeper insight into a real dimension of Messiaen's process. 'Râgavardhana, rythme hindou', therefore, may be artifice; however, its artifice contains a veridical trace of Messiaen's compositional development.

[96] Balmer et al., *Le Modèle et* l'invention, 88–97.
[97] Ibid., 91–2; 'Cette démonstration est cependant pseudo-logique… ce n'est pas en vertu du fait qu'un rythme hindou contient une valeur ajoutée qu'on peut "conclure" qu'il est possible d'ajouter une valeur ajoutée à tout rythme. Ce qu'expose Messiaen ne résulte bien entendu nullement d'un raisonnement logique ou scientifique, mais d'un choix artistique.'

One can imagine why, especially for pedagogical purposes, Messiaen might have airbrushed the connection between Indian rhythm and formal techniques he would have preferred to portray as original. A trickier question might be: why, having extrapolated three technical principles which stood happily alone (as indeed they do in the *Quatuor* preface), did he redraw their connection to the *deśītāla*s from *TLM* onwards? With 'Râgavardhana, rythme hindou', we find ourselves at a familiar crossroads where philological abstraction meets performative rhetoric: the moment the *deśītāla*s are on the brink of vanishment behind the transformations Messiaen effects upon them is the very moment Messiaen 'performs' them into existence by labeling these transformations as 'Hindu'. Even if the link between his rhythmic techniques and the *deśītāla*s is not fictitious, for Messiaen to assert it here seems, at least, gratuitous. The gratuitousness increases approaching *Turangalîla*, whose title offers tribute (or compensation) to the *deśītāla*s which are no longer present as such, embedded only on a substratum deeply undergirding the work's rhythmic conceits. By the end of the decade, these 'supplemental' labels multiply as Messiaen begins peppering his scores with *deśītāla* names and even an invented 'pseudo-Sanskrit' lexicon in works like *Cinq rechants* (1948) and *Cantéyodjayâ* (1949). His performance of Sanskrit musical erudition swells, eventually bursting into gibberish; his brandishing of *deśītāla*s during these later years, no longer in covert service of rhythmic innovation, is instead reducible to a pageantry of syllables.

Here – to return to a question raised at the very beginning of this thesis project – may be the true site of Messiaen's 'exoticism'. In the early 1930s, Messiaen's engagement with Indian rhythms took root and shape in the wake of generations of musico-philological projects of Indo-Europeanist restitution, and became integrated into a self-consciously 'structural' plane of his musical 'language' or 'morphology'; by the late 1940s/early '50s, this engagement transmuted into a patina, with *deśītāla*s increasingly imported as rhythmic and linguistic 'objects', or evocative adornments. This analysis calls into question the teleology and ethics most often posited in musicological discussions of 'exoticism' – both concerning and beyond Messiaen and referenced in the Introduction of this thesis – according to which 'superficial' imitation, pastiche, or 'ornamental' exoticism gives way, over the *longue durée*, to a profounder, 'submerged' or more studiously 'transcultural' interplay, conceived on a 'structural' level and associated with a more liberal ethics. Messiaen's chronology with respect to his borrowing of Indian rhythm effectively reverses this vector; but that is not all: as we shall see in the following section, for Messiaen, these multiple orientalisms comfortably coexist, frustrating the binary opposition itself, and thus any attempt to map it onto a coherent

or emergent ethical stance. Rather, Messiaen deploys 'structural' and 'ornamental' engagements with the *deśītāla*s in tandem, and even alongside a foil of rationalist technicity.[98]

Revisiting Messiaen's 'experimental period'.

Messiaen's search for and extrapolation of structural principles in the *deśītāla*s, furthered by his optimisation of those principles and recursive application of them onto rhythmic cells, resulted in his increasingly rationalised approaches to rhythm that arise over the 1940s. How far might we push this argument? Could this logic extend to reach a piece as abstract and rationalised as 'Mode de valeurs et d'intensités' – the second of Messiaen's *Quatre études de rythme* and the work which became the touchstone for the 'total serialism' of the 1950s?

Suggesting a continuity between the *deśītāla*s and a work like 'Mode de valeurs' contravenes received wisdom about Messiaen's path. Scholars have largely taken for granted that Messiaen's style underwent a significant upheaval following the premiere of the *Turangalîla-Symphonie*, around the time of the composition of *Cantéyodjayâ* (1949), the *Quatre études de Rythme* (1949–50), and the *Livre d'Orgue* (1951–2).[99] This view was articulated by Roger Nichols in his influential early study: 'Messiaen finished *Turangalîla* in November 1948, a few days before his fortieth birthday. But by the time of its first and triumphant performance in Boston a year later he had moved right away from tonality… right away indeed from birdsong and Hindu rhythms'.[100] The years during which these works were composed have become widely characterised as Messiaen's 'experimental period'.[101] There are several reasons to justify such a periodisation. Aesthetically, it is true, Messiaen pares back the

[98] Messiaen's 'exoticism' should not be reduced to his use of *deśītāla*s, and a fuller study of Messiaen's 'others' would incorporate his broader 'ethnographic gallery' (Balmer et al., *Le modèle et l'invention*) into the discussion, including his appropriations from Peruvian, Chinese, Korean, Japanese, Balinese, Papuan, and Russian music. An earlier draft of this thesis situated Messiaen's engagements with Indian rhythm alongside his borrowings from Peruvian song during the 1940s, especially in *Harawi*, arguing that Messiaen's borrowings from Indian music were mediated by philology, while his borrowings from Peruvian music were mediated by ethnography and surrealism. I contended that the aesthetics of ethnographic surrealism, which he absorbed from ethnographers like Raoul and Marguerite d'Harcourt and from composers like Jolivet, were likely an additional factor in his increasingly flamboyant invocations of Sanskrit in the late 1940s. Future researchers might consider investigating the dynamics of intellectual networks of ethnographers, musicologists, and composers, and the degree to which such networks are analogous, contrasting, overlapping, or distinct from the philological networks central here.

[99] See, e.g., Griffiths, *Olivier Messiaen and the Music of Time*, ch. 9; Hill and Simeone, *Messiaen*, 178–80; McNulty, 'Messiaen's Journey towards asceticism', 77.

[100] Nichols, *Messiaen*, 48.

[101] The phrase 'experimental period' was used by Sherlaw Johnson in *Messiaen*, ch. 10, and Boulez in a 1978 text reproduced in *Orientations*, 411; the periodisation was echoed in Griffiths, *Olivier Messiaen and the Music of Time*, ch. 9 ('New Modes of Thought') and Hill and Simeone, *Messiaen*, 176ff ('Experiment and Renewal').

harmonic lushness of *Turangalîla* and *Harawi*: as Christopher Dingle puts it, 'displaying extraordinary artistic ruthlessness, he now excised from his stylistic palette large tranches of the idiosyncratic musical language he had spent more than two decades developing'.[102] Formally, too, Messiaen retreated to smaller genres for familiar instruments – piano and organ.[103] Moreover, given the tumultuous critical environment of the 1940s – including Messiaen's centrality, despite himself, to two major press polemics,[104] plus the vitriol of several students who decamped to study twelve-tone composition with René Leibowitz – scholars have been tempted to psychologise the stylistic shift by the turn of the 1950s as a result of Messiaen's shaken confidence, and as an assimilation of (or capitulation to) rationalist techniques that gripped his most talented pupils.[105] Even so, it is difficult to conceive of any moment during his career when Messiaen was not 'experimenting'; and it therefore seems improper to sequester his experimentalism into this period. Instead, it might be productive to reconsider these 'experimental' works not in light of their 'difference', but in light of longstanding continuities with his stylistic development.[106]

Moreover, suggesting a continuity between the *deśītāla*s and 'Mode de valeurs' contravenes received wisdom about mid-century high modernism more broadly. It is generally accepted that the work, particularly as apprehended by Stockhausen and Goeyvaerts at Darmstadt, inspired the experiments in multiple/total serialism that became strongly associated with the school.[107] The interpretation of Messiaen's étude as an extension of dodecaphonist practices, and in particular of the increasingly rationalised serialism of Webern, resulted in the projection of a Viennese genealogy onto Messiaen's work – a genealogy propagated most

[102] Dingle, *The Life of Messiaen*, 122.
[103] Some, including Dingle, and Hill and Simeone, have also attributed this formal shift to more logistical factors, such as an absence of major commissions, the need to care for his first wife in the midst of her declining health.
[104] The two major polemics have become known as (1) 'Le Cas Messiaen', and (2) the 'Stravinsky Debates'; see Hill and Simeone, *Messiaen*, 142–54; and Sprout, 'The 1945 Stravinsky Debates'.
[105] Hill and Simeone read this shift as an intentional 'period of experiment' to follow *Turangalîla* (*Messiaen*, 178); similarly, Dingle posits that Messiaen plotted this significant artistic shift in advance; *The Life of Messiaen*, 108–9. However, to me, it seems presumptuous to consider these works as anything less than earnest compositional ventures.
[106] Dingle makes a similar point, albeit fleetingly: '[Messiaen] produced a succession of solo pieces, some for piano, others for organ, in which he did not start afresh, but chose to isolate and develop the progressive elements that already existed within his music' (*The Life of Messiaen*, 123). Vincent Benitez also passingly emphasises continuities across Messiaen's techniques at the beginning and end of the decade ('Reconsidering Messiaen as Serialist', 268; 293).
[107] See, e.g., Messiaen and Samuel, *Musique et couleur*, 50; Griffiths, *Olivier Messiaen and the Music of Time*, 153; Taruskin, *The Late Twentieth Century*, 27.

loudly by Messiaen's students, but also retroactively embraced by Messiaen himself.[108] However, while 'Mode de valeurs' is often described as an 'application' of serialist principles to parameters beyond pitch,[109] scholars of Messiaen and of serialism have been emphatic that 'Mode de valeurs' is not 'serial' in the Viennese sense.[110] Meanwhile, twentieth-century music historiography has tended to oppose the numerical, scientised, hyper-determinist ethos of the Darmstadt serialists with outward-looking transcultural avant-gardists – a structuration which logically pits the rationalism of 'Mode de valeurs' against the externalism of *deśītāla*-borrowing. However, such a historiography builds upon a myth that the Darmstadt composers shared common, defined aims, rooted in an extension of Webernian serialism. This narrative, in turn, builds upon a fundamental opposition between Schoenberg and Stravinsky, whereby Schoenberg maximises a Austro-German tradition of motivic development while Stravinsky seeks musical materials in an 'eclectic' range of 'folk', historical, and 'primitive' sources.[111] Against this backdrop, Messiaen is construed as 'heir' to Stravinsky and Debussy: the lush *Turangalîla* is cast as a Romanticist regression, while 'Mode de valeurs' was an ascetic blip of high modernist formalism,[112] composed under mounting pressure from his increasingly acrimonious students, but one which successfully rehabilitated his avant-gardist status.[113] The fundamental opposition between abstract, 'internalist' European modernism and musical 'others' was touted not least by Pierre Boulez, who remarked, for example, how the 'knowledge of African or Asian musics was a counterweight to the danger of a certain European academicism'.[114] However, recent scholarship on Darmstadt complicates the idea that serialism and hyperrationalism necessarily excluded 'externalist' forms of

[108] Writing in 1958, Messiaen affirmed his role as the first composer to devise a 'super-series applied to all the elements of music' (quoted in Dingle, *The Life of Messiaen*, 125).
[109] Griffiths, *Olivier Messiaen and the Music of Time*, 143; Dingle, *The Life of Messiaen*, 124.
[110] See, for example, Grant, *Serial Music, Serial Aesthetics,* 61–63; Sherlaw Johnson, *Messiaen*, 105; Toop, 'Messiaen/Goeyvaerts', 144; and Nichols, *Messiaen*, 48. In contrast, Allen Forte has advocated for thinking of Messiaen affirmatively as a 'serialist' ('Olivier Messiaen as Serialist'). Vincent Benitez, responding to Forte and echoing Joseph Straus, flips this argument, arguing that those who say Messiaen's music was not 'serial' adhere to a 'myth of serial orthodoxy' whereby there is only one proper way to compose serial music ('Reconsidering Messiaen as Serialist', 268). The issue of whether Messiaen's music is 'serial' seems to me semantic, unresolvable as long as this question is litigated on analytical, rather than historical, terms.
[111] A particularly stark exposition of this historiography can be found in Chapter 3 of Georgina Born's *Rationalizing Culture*. The opposition between Schoenberg and Stravinsky was perhaps most devastatingly concretised in Theodor W. Adorno's *Philosophie der neuen Musik* (1949).
[112] Paul Griffiths calls 'Mode de valeurs' an 'isolated, marginal phenomenon in Messiaen's own output' (*Olivier Messiaen and the Music of Time*, 163).
[113] The avant-gardist capital gained from 'Mode de valeurs' helps explain why Messiaen may have embraced, and even cultivated, the 'serialist' narrative around the work; yet even while describing 'Mode de valeurs' as 'prophetic' and historically important, he dismissed it as musically worthless ('trois fois rien') (Messiaen and Samuel, *Musique et couleur*, 50).
[114] Boulez, *Entretiens avec Michel Archimbaud*, 111; 'La connaissance des musiques africaines ou asiatiques a été un contrepoids au danger d'un certain académisme européen'.

experimentalism, highlighting the multiplicity of perspectives populating the school, especially in its formative years.[115] Björn Heile, for example, has refuted the notion that Darmstadtian modernism sealed itself off from music outside the 'serialist' tradition. Even within the context of Messiaen's *Quatre études*, 'Mode de valeurs' sat alongside the blatant 'exoticism' and 'primitivism' of 'Île de feu 1' and '2', and the experiments in colouration of 'Neumes rythmiques'.[116] If 'Mode de valeurs' came to occupy a *place à part* in its reception, that does not necessarily suggest that Messiaen conceived of it as a singular outlier. Nevertheless, there have been few sustained attempts to trace how the highly rationalised treatment of rhythm developed out of Messiaen's own earlier style.[117]

Recovering the *deśītāla*s in 'Mode de valeurs', however, is to propose an even more thorough deconstruction of rationalist hermeticism than Heile's. In Heile's counterexamples, musical references to 'otherness' remain in some way demarcated from musical 'rationalism' itself, even when in the same work.[118] For instance, Heile cites how Stockhausen subjects the sounds of a variety of Japanese instruments to numerically determined patterns of duration in *Telemusik* (1966), suggesting that serialism is not necessarily all about austerity, abstraction, and non-reference. But even here, 'serialism' as a procedure remains distinct from the materials subjected to it (rather like Balmer et al.'s conception of Messiaen's prism); ultimately, therefore, despite Heile's best intentions, this argument promulgates rationalism's

[115] See, e.g., the issue of *Contemporary Music Review* devoted to 'Other' histories of Darmstadt, in which Christopher Fox 'question[s] the extent to which there ever was a "Darmstadt School"' ('Music after Zero Hour', 13). Martin Iddon has also contended that Boulez has significantly magnified the pervasiveness of serial thought at Darmstadt in the early 1950s, and contends that even as late as 1955, the narrative of Darmstadt's inheritance of European music history from Webern had yet to form (*New Music at Darmstadt*, 102; 118).

[116] At the time of these works' premiere, the critical reception invariably placed more emphasis on Messiaen's Indian sources, or his self-styled rhythmic devices, than on any connection to Viennese trends. Even in Darmstadt, where Messiaen's *Études de rythme* were performed in 1952, Messiaen's music is never likened to 'serialism', but always explained with reference to its Indian sources, while the preponderance of press attention is focused on Messiaen's exoticism and surrealism (D-DSim; see folders containing coverage of the summer school in the *Darmstädter Echo* and *Darmstädter Tagblatt*, especially from 1951–54).

[117] Paul McNulty is one of few commentators to draw a relatively straight line from the *deśītāla*s to the procedure in 'Mode de valeurs' ('Messiaen's journey towards asceticism', 73). However, I believe in his framing, McNulty adheres too tightly to the traditionally conceived oppositions of twentieth-century music historiography, and therefore misses the import of the continuity he rightly identifies. Cheong Wai-Ling has productively emphasised continuities extending across from the 'Experimental' works through the 1950s works centred around birdsong ('Symmetrical Permutation, the Twelve Tones, and Messiaen's *Catalogue d'oiseaux*'), although her focus is different from mine. Meanwhile, there is evidence that Messiaen had been thinking about rhythmic 'modes' and even 'series' several years before 'Mode de valeurs' was conceived; Peter Hill suggests that Messiaen had considered 'serialising' parameters other than pitch as early as 1945 ('Messiaen recorded: the *Quatre Études de Rythme*', 80), although I would question his assumption that 'Mode de valeurs' is the clear outcome of that idea.

[118] For example, Heile, 'Darmstadt as Other'; see also, Borio, 'Tempo e ritmo nelle composizioni seriali. 1952–1956', in which Borio notes the use of 'popular music' in the compositions of Darmstadt composers, contesting the notion that the high postwar modernists had only disdain for popular genres (68–93).

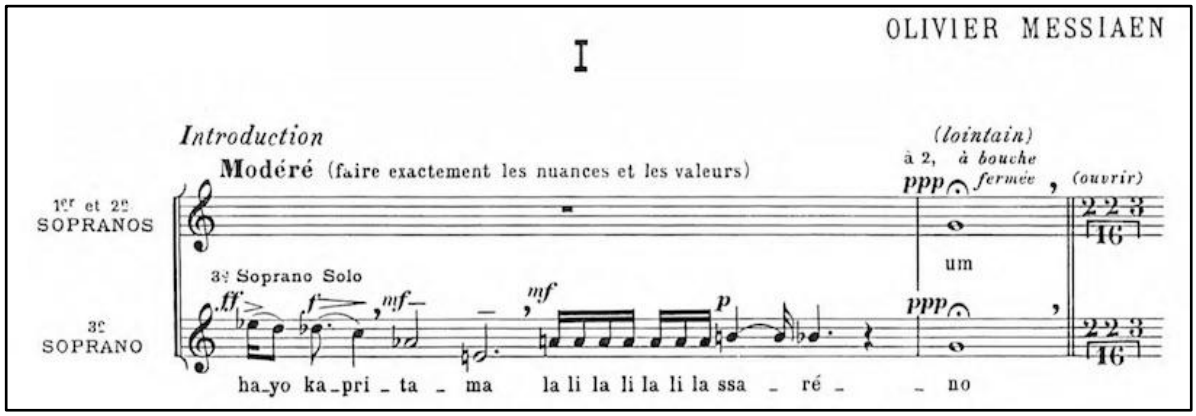
fashioning as an essentially hermetic formalism which can govern musical 'sounds' or materials. The case of Messiaen enables us to deconstruct this binary a step further – to the techniques of rhythmic rationalism themselves – and to hypothesise that the rhythmic procedure brought to bear in 'Mode de valeurs' is itself the fruit of nearly two decades' rhythmic experimentation, brought about by his philologically mediated reading of the *deśītāla*s.

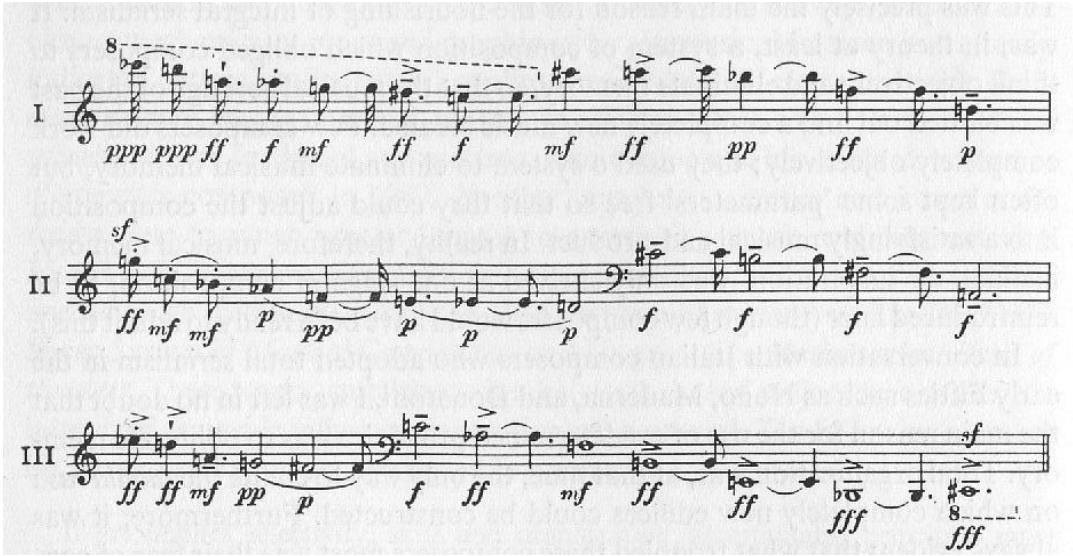
Indeed, our philological contexts return with a vengeance at the end of the 1940s. To illustrate, I shall turn to *Cinq rechants* (1948) – the final work of Messiaen's 'Tristan Trilogy' (along with *Harawi* and *Turangalîla*), on the cusp of the 'experimental period'. Commissioned by Marcel Couraud to compose a choral work, Messiaen revisited an old theme, the fusion of lyrical metre and musical rhythm – the utopian ideal that had fuelled Meillet's and Emmanuel's research on Greek and Indo-European metre. This theme is evoked in the work's title: *Cinq rechants* is an homage to Claude Le Jeune, whose sixteenth-century innovations in modelling rhythm on prosody in his 'musique mesurée à l'antique' gave Messiaen conceptual inspiration.[119] For Le Jeune and the other so-called *académiciens*, the 'strictly quantitative metre of Greek and Roman poetry' provided a model for the treatment of musical rhythm.[120] It was precisely the 'quantitative' nature of metres in the early Indo-European languages, as opposed to a stress of 'intensity', that was highlighted by Maurice Emmanuel, via Antoine Meillet, in his 1926 paper.[121] In *Cinq rechants*, it is as if Messiaen 'updated' Le Jeune's project in light of more recent research: rather than Greek and Roman poetry, Messiaen upheld Sanskrit as his model. Lyrically, he constructed what he called an 'imaginary or pseudo-Hindu language',[122] including such passages as, 'Niokhamâ palalan soukî mon bouquet tout défait rayonne' and 'oumi annôla sarî sarî floutî', liberally capped with circumflexes (the diacritical used with striking frequency in early twentieth-century francophone transliterations of Sanskrit). Rhythmically, Messiaen returned to the *deśītāla*s anew, more pointedly than ever before, garbing them in ostensibly apposite syllables. For one, he borrowed many of them, including several new to him, verbatim – and admitted to their use, explicitly, for the first time.[123] In addition, he deployed the *deśītāla*-derived principles.

[119] Goléa, *Rencontres avec Olivier Messiaen*, 176–7.
[120] Thomas, *Music and the origins of language*, 21.
[121] On Meillet's paper, 'Les origines indo-européennes des mètres grecs', see above, Chapter 3.
[122] Messiaen, *Cinq rechants*, 'Note'; 'Langue imaginaire ou pseudo-hindoue'.
[123] Robert Sherlaw Johnson has drawn a list of the *deśītāla*s cited in *Cinq rechants* (*Messiaen*, 99). *Cinq rechants* was one of only two works in which Messiaen explicitly admitted to borrowing *deśītāla*s (Goléa, *Rencontres avec Olivier Messiaen*, 177); while Messiaen's assertion that this was the first work in which he used the

One such principle is showcased plainly in the opening solo – a paradigmatic 'inexact augmentation' extrapolated from the *deśītāla* '*laksmiça*', whose expanding durational ratios (2:3:4:8) are extended in either direction (1:2:3:4:8:12) (Fig. 8.13*a*), recalling perhaps even Messiaen's earliest experimentations with the technique in *Poèmes pour Mi*.[124]

It is tempting here to draw a straightforward link from here to 'Mode de valeurs', whose modes closely resemble, in both pitch and rhythmic profiles, the opening of *Cinq rechants* (Fig. 8.13*b*). However, one final stepping stone between these two works cements the argument even further. The work in question is *Cantéyodjayâ*, a standalone work for piano, composed in 1949 but withheld from publication until 1953. Initially dubbed 'essai





Figures 8.13*a–b*: *Cinq rechants*, opening, with inexact augmentation, above; 'Mode de valeurs et d'intensités', preface, showing the three 'modes', below.

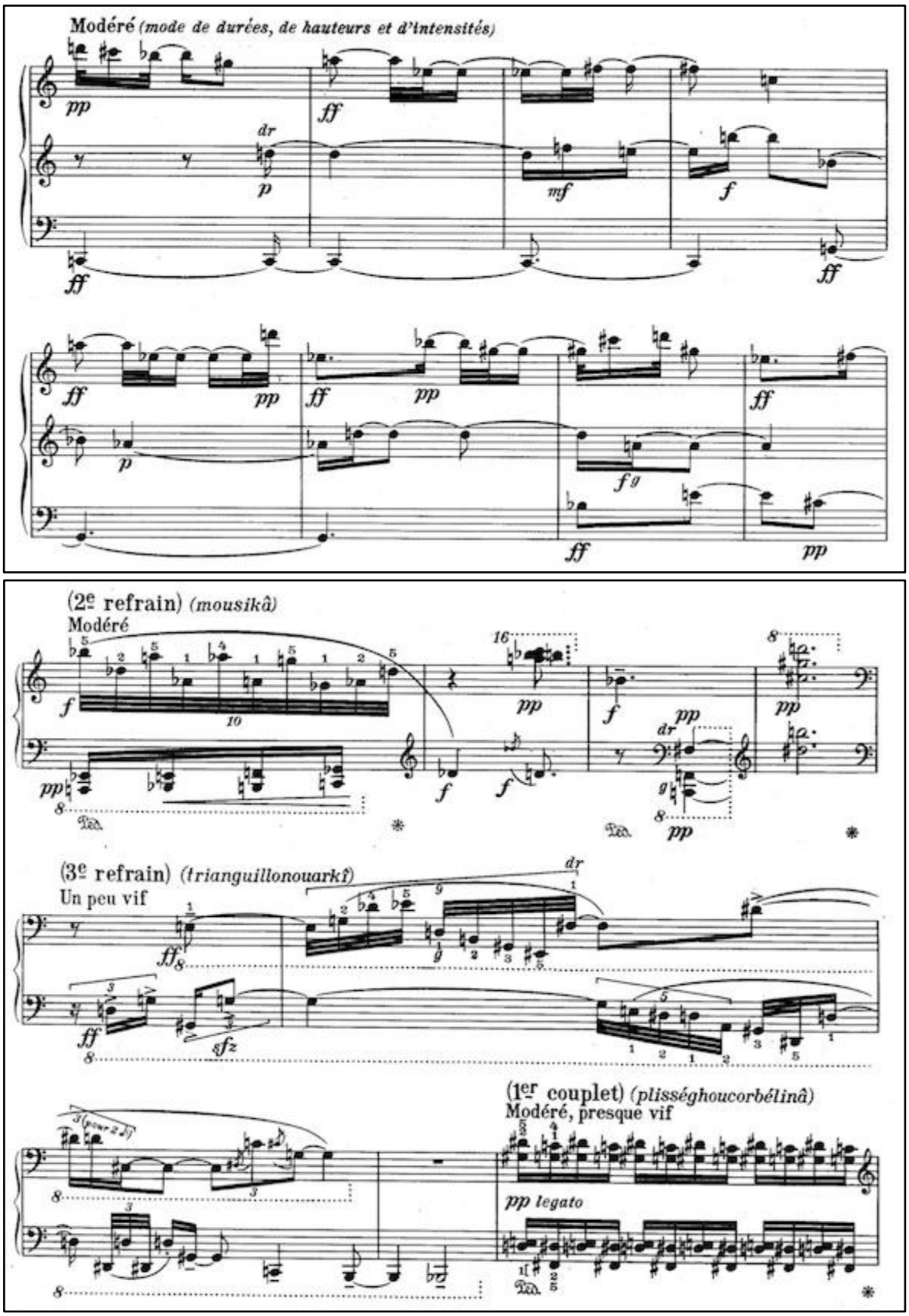
*deśītāla*s may appear preposterous in light of this chapter, the fact that Messiaen began to borrow them verbatim, rather than as a source of structural principles, may elucidate both his claim, and my own – that the predominant mode of borrowing in the earlier years was procedural rather than objectified.

[124] These ratios may be read as augmentation in two ways: three groups of two notes, augmented inexactly; or two groups of three notes, augmented exactly. The articulation markings appear to favour the former reading.

rythmique' before Messiaen effaced the subtitle,[125] *Cantéyodjayâ* is the nexus where Messiaen's formalist rhythmic style meets the philological themes of this thesis.[126] As in *Cinq rechants*, Messiaen employed *deśītāla*s, now taking the novel measure of labelling them in the score itself. Alongside these *deśītāla* markers, however, Messiaen elaborated his pseudo-Sanskrit lexicon, not only in the title, but also designating formal sections throughout the score. Moreover, it is in *Cantéyodjayâ* that Messiaen first attempted the extended and superimposed rationalised procedures that he subsequently honed in 'Mode de valeurs'. In the context of *Cantéyodjayâ*, this conceit is confined to an episode, bearing a technical label – 'mode de durées, de hauteurs et d'intensités'. Occupying a similar paratextual space as his Sanskrit labels, Messiaen justaposes exoticism and austere technicity along the same musical and rhetorical plane (Fig. 8.14*a*–*b*). But look again: this technical description bears the trace of philological thinking on Messiaen's rationalist practice. 'Durée' (duration), 'hauteur' (pitch), and 'intensité' (intensity) form a familiar triad: the three forms of phonological accent classified by the Indo-Europeanist linguists, discussed in Chapter 3. Here they are combined and rationalised in musical terms.

'Mode de valeurs', therefore, was not an island of Viennese experimentation – neither in its compositional realisation, nor in its theoretical formation. Instead, it is imbricated with Messiaen's Sanskrit imaginary, not only in juxtaposition, but even in conceptualisation. Sketches for the *Quatre études de rythme* continue to offer further evidence of this: Messiaen continually reworks, extrapolates, and rationalises '*laksmiça*'; he transcribes various non-retrogradable patterns in 'Hindu' rhythmic notation; and even devises a plan for what he calls an 'ordre phonétique' – echoing the linguistics connections – consisting of a 'mode d'attaques'.[127] If anything, the swerve distinguishing 'Mode de valeurs' from its predecessors lies less in the abstractness of its composition, and more in its novelty of framing[128]: the steely

[125] F-Pn, RES VMA Ms. 1928; see also, RES VMA Ms. 1537.
[126] Gareth Healey has also described *Cantéyodjayâ* as a crucial and revelatory 'link' in Messiaen's oeuvre, although for rather different reasons from me ('Messiaen's *Cantéyodjayâ*: A "Missing" Link'). He finds, astoundingly, nothing to say about the rhythmic conceits in the work, rudely dismissing Michèle Reverdy's observation that rhythm is the work's most interesting parameter (68); and goes on to describe, anachronistically, a section of *Cantéyodjayâ* as 'based on the notion of "Total Serialism"' (68) – a concept which, as we have seen, did not even exist at the time of Messiaen's composition.
[127] F-Pn, RES VMA Ms. 1982 (6), 5; (4), 9; and (5), 2.
[128] Pierre Boulez reads Messiaen's titular practice during these years compellingly as an 'open declaration of the dilemma in which the composer found himself', between whether to rely upon his 'poetic vision', or rather to allow the 'technical means' to 'generate a new musical poetics by the very fact of their existence' (*Orientations*, 414). It is interesting and telling that this dilemma is described as 'poetic' (i.e. rhetorical), rather than musical.



Figures 8.14*a*–*b*: Pseudo-Sanskrit and philologically mediated rationalism neighbour each other in labels peppering the score of *Cantéyodjayâ*: p. 8, bb. 1–8, above; p. 11, bb. 5–13, below

formalism of Messiaen's prosaic title is performative, just as was the technical formalism of his rhythmic descriptions during the 1930s or the exoticism in his chapter on 'Ragavardhana', and just as were the composers who labelled their own 'mode hindou', a generation prior; only rather than performing philological authenticity, Messiaen performs rationalist objectivity – or 'total serialism'.

Conclusion.

The periodisation of Messiaen's 'experimental' years implies not only an initial discontinuity with what preceded it, but a terminal discontinuity with what followed, ostensibly occurring between the completion of *Livre d'orgue* (1952) and the turn to birdsong with *Réveil des oiseaux* (1953). Birdsong is thus construed as yet another musical fount – one which 'saved' Messiaen from a crisis of artistic identity he faced during his experimental years, launching an extended period of birdsong exploration through the 1950s with *Oiseaux exotiques* and the *Catalogue d'oiseaux*.[129] There is, no doubt, some truth in this narrative, and birds clearly provided Messiaen a wellspring that inspired his compositions over that decade.

However, it might be interesting to think of birdsong as another source of rhythmic utopianism, for which the foundation had been laid long before by musical philologists.[130] While Messiaen's interest in birdsong has been more readily assimilated by musicologists to the parameter of melody,[131] there is precedent in francophone musicology – even in the very texts considered in Part I of this thesis – for thinking of birds as the ultimate rhythmic liberators. Gevaert, for example, describes the earliest, prehistoric music as 'absent of any rhythmic element, or any fixed intonation; – music comparable to the warbling of birds'.[132] Aubry, in *Le Rythme tonique*, contrasts square metres, 'à l'européenne', with melismatic chant, 'free as birdsong'.[133] The metaphor was extended by Benoît de Malherbe, who built on

[129] See, e.g., Hill and Simeone, *Messiaen*, 199; they describe the tension between numerical and natural inspiration as a 'battle...between head and heart'.
[130] In this sense, birds may have represented a sort of musical 'origin' that appeared even more fundamental than the 'proto-Indo-European'. Alexander Goehr has described how Messiaen situated the Indian rhythms within a teleological progression, following 'Nature', as one of the early stages of 'Human Music' (*Finding the Key*, 46). For a recent historical discussions of the relationship between birdsong, music, and nature from musicological perspectives, including discussion of Messiaen, see Mundy, *Animal Musicalities*.
[131] E.g., Balmer et al., *Le modèle et l'invention*, 23.
[132] Gevaert, *Histoire et théorie*, II, 4; 'absence de tout élément rhythmique [sic] et de toute intonation fixe; — musique comparable au ramage des oiseaux.'
[133] Aubry, *Le rythme tonique*, 37; 'Libre comme un chant d'oiseau'.

Meillet and Emmanuel's work in a 1933 article on the 'sources' of rhythm: 'Yes, one must reclaim the rhythm of nature; sing as a bird flies'.[134] Messiaen even admired what he called the 'rhythmic pedals' generated by simultaneous birdsongs in nature.[135] Ultimately, Messiaen's recourse to birdsong did not supplant his use of Greek and Indian rhythms and labels (which are listed in the preface to *Oiseaux exotiques*, and sprinkled throughout the orchestral score), or of rhythmic rationalism (plenty of which is strung throughout the *Catalogue d'oiseaux*). Yet, the dawn chorus offered Messiaen a fresh model of melodic, harmonic, and rhythmic unity – and new Edenic horizons.

[134] Malherbe, 'Aux Sources du rythme et de la musique', 25; 'Certes il faudrait reprendre le rythme de la nature; chanter comme un oiseau vole…'. See further use of the bird metaphor, 27, 30.
[135] Messiaen, *TLM*, 33.

CONCLUSION

Two basic nineteenth-century ingredients – the impulse to define the 'nation', and the observation that language elements may be 'compared' – coalesced, mutually reinforced one another, and afforded emergent notions of 'Indo-European' essentialism. By 1940, the course of this conjunction (nourished by social Darwinism and various political and material circumstances) had taken its most extreme turn: a death spiral from linguistic theory to racist ideology to murderous reality, shepherded by the demagogues of the Nazi Party to fascistic and ultimately genocidal ends. Despite historiographical cautions against teleology, it can be difficult today to view 'aryanism' as anything other than that which led to the Shoah – to do so feels irresponsible, even apologist. Yet, if World War Two's gravitational pull has shaped historiography of aryanism, the trajectory toward extremism masks subtler avenues by which the logics of the Indo-European hypothesis infused (and continue to infuse) culture and thought. In isolation, such incremental infiltrations may be imperceptible or appear innocuous; but they offer evidence of a hegemonic foundation, without which no extremism could stand.

This thesis has traversed the 1930s and '40s with scarce reference to the mounting, politicised aryanism (often manifested more precisely in the form of antisemitism) gathering around its main actors, instead remaining buried in manuscripts and additive rhythms. Such a path may seem oblivious. I could instead have joined up the *fin-de-siècle* musicological discourses of Part I with developments in musicology, criticism, and policy in these later decades – the antisemitism of the Action Française, the aryanist policies of Occupied Paris, or the cultural agenda of the Vichy regime.[1] Evoking the years 1940–41, I might have spotlighted the musical activities of the Groupe Collaboration, or interpreted the Indo-Europeanism of Bachelet's chauvinistic solar hymn, *Sûryâ*, rather than alighting on the *Quatuor pour la fin du Temps*, composed by a victim of German imprisonment whose music was 'notably absent' from official collaborationist commissions.[2] If this thesis project had, from its inception,

[1] For such histories, see, e.g., Chimènes, ed., *La Vie musicale sous Vichy*, especially Leslie Sprout's contribution, 'Les Commandes de Vichy'; Sara Iglesias, *Musicologie et Occupation: Science, musique et politique dans la France des 'années noires'*; Le Bail, *La Musique au pas: Être musicien sous l'Occupation*; Fulcher, *Renegotiating French Identity: Musical Culture and Creativity in France during the German Occupation*.
[2] Sprout, 'Les Commandes de Vichy', 164; while observing the nationalism of *Sûryâ* in a general sense through its framing in relation to Wagner and also Debussy (173–6), Sprout does not remark upon the aryanism of the work through its 'Vedic' content; Jeffrey Mehlman makes more of this aspect in his reading (*Adventures in the French Trade*, 27–8).

sought to trace the imprint of 'aryanism' in French music, it very likely would have fallen along the more familiar trajectories just suggested. However, the initial impulse was, more prosaically and perhaps fortuitously, Messiaen's *deśītāla*s; and it was in grappling with the inadequacy of an existing critical framework ('exoticism') to accommodate them that the genealogy of Messiaen's metrical experimentation in Indo-Europeanist philology, and the implications of this philological mediation for compositional history not limited to Messiaen, became clear.

Even so, the counterintuitive culmination of this history, beyond the *deśītāla*s, in Messiaen's 'Mode de valeurs et d'intensités', the most objectivist formalism, might be viewed as evidence of an obdurate, or paranoid, resolve to seek and find the residue of Indo-Europeanism everywhere, if not an attempt to traffic in the thrills of unlikely juxtaposition.[3] The Darmstadt context in which the work was received only intensifies the apparent irony: after all, the Ferienkurse für Neue Musik, where 'Mode de valeurs' was celebrated for elevating 'serialism' to higher realms of internal unity, was conceived as an explicitly internationalist creative space, a utopia of progressive experimentalism and exchange to compensate for over a decade of Nazi-stifled German musical life; the nationalist impulses of the Indo-European hypothesis would seem utterly out of place here.[4] From the philological perspective, however, the connection is perhaps not as far-fetched as it may appear. Irrespective of its historicist ambitions, comparative philology brought about the objectification of the linguistic element itself – a process which ultimately afforded a formulation of language as structure ('langue' in Saussurean parlance), separable from contingent utterances or forms ('parole'). By a parallel logic, quasi-linguistic efforts to distil music into basic objectifiable particles enabled certain composers, sceptical of music's capacity for 'expression', to move toward the systemic manipulation of structures. More so than by Messiaen, the outcome of such a progression – from the attempted restitution of originary forms toward novel autonomous constructions – is epitomised by Boulez, who outdid 'Mode de valeurs' with his own *Structures* [*I*] (1952). Indeed, various authors have drawn philosophical links between (post-)Saussurean linguistics and Boulezian integral serialism: the title, *Structures*, would make such a connection almost explicit, were it not for

[3] Ben Walton's critique of musicologists' taste for 'novelty in the construction of new contexts', especially through the 'familiar frisson of staging another encounter between the European art-music self and its well-established Other', comes to mind here ('Quirk Shame', 127).
[4] See Wolfgang Steinecke's remarks in the inaugural programme booklet, quoted in Iddon, *New Music at Darmstadt*, 24.

the fact that, as Jonathan Goldman points out, the term 'structuralism' came into usage only in the late 1950s.[5] But perhaps (as might be suggested of Saussure's 'general linguistics') the 'paradigm shift' is less a rupture than a response, by way of reaction, to prior, philologically mediated processes. More directly, post-Saussurean linguistics and semiotics continued to exert an impact on (especially francophone) music studies during a similar period, in ways that may also exhibit continuities with the networks charted in this thesis: Claude Lévi-Strauss, who after all studied linguistics with Indo-Europeanists Émile Benveniste and Georges Dumézil – Antoine Meillet's two most decorated pupils – instrumentalised structuralist linguistics in the infamous critique of serialism with which he opened his 'science of mythology'; [6] and the disciplinary convergence was pursued more rigorously by scholars like Nicolas Ruwet and Jean-Jacques Nattiez.[7]

On the other hand, if philology, and attendant Indo-Europeanism, are indeed epistemologically and ideologically hegemonic – at the heart of modernity's 'paradoxes and antinomies' as scholars have argued[8] – then locating a philological imprint in any individual 'modern' cultural product (such as 'Mode de valeurs') is perhaps, in the final analysis, a banal exercise, and the greater achievement is to unearth these ideological underpinnings and gauge the breadth of their impact. By studying the spread of philology and Indo-Europeanism, tracing networks of transmission and exchange from through historical and relational methods, we may revisit, and perhaps even redraw, traditional historiographical compartments and narratives. This has been demonstrated with particular attention to the French case in this thesis, in which the common denominator of Indo-European philology produced responses in some form or another across many of the conventional binaries of French music history – from both republicans (Saint-Saëns) and royalists (d'Indy); the popular theatre (Pierné) and the organ loft (Tournemire and Messiaen); regionalists (Séverac) and centralists (Massenet); and bestriding realms of 'exoticism' and 'neoclassicism' (Roussel, Emmanuel) – to name a

[5] Goldman, 'Structuralists contra serialists?', 78; see also, Kovács, *Wege zum musikalischen Strukturalismus*; Campbell, *Boulez, Music, and Philosophy*, ch. 6.
[6] Lévi-Strauss, *The Raw and the Cooked*, 21ff. See also, Donin and Keck, 'Lévi-Strauss et "la musique"'; they evoke the importance of Lévi-Strauss's formation with Benveniste and Dumézil on 114–15. Benveniste was himself a new music acolyte who subscribed to Boulez's Domaine musical.
[7] For one perspective on this intellectual history, which is considerably more complex than my passing remarks may suggest, see Nattiez, 'Reflections on the Development of Semiology in Music'. Nattiez's article was translated into English in 1989 by Katharine Ellis, who supervised the present doctoral thesis – showing just how far these networks might be said to sprawl. See also the emergence of 'Gregorian semiology' at Solesmes from the 1950s.
[8] Rabault-Feuerhahn, *L'archive des origines*, Part Two; Ahmed, *Archaeology of Babel*, 149–50; Kaiwar, 'The Aryan Model of History and the Oriental Renaissance', 14.

few. If some scholars have underscored links between political ideologies and 'aesthetic values', composers across political spectra could nonetheless respond to certain common contexts and problems in ways that complicate overly deterministic structurations.[9]

Moreover, attention to the circulations of Indo-Europeanist thought beyond francophone contexts would help draw together nationally bounded histories by means of transnational crosscurrents. While the rise of nationalism in the nineteenth and twentieth centuries has tended (in somewhat self-fulfilling fashion) to produce music histories falling along 'national' traditions, tracing flows of Indo-Europeanist philology and musicology – conceived as 'science' or 'knowledge' – across national borders allows us to foreground intellectual and ideological continuities that may transcend the often nationalised bounds of cultural history.[10] Scientific constructions of Indo-Europeanism circulated among transnational scholarly communities at a stage 'prior' to nationalist 'cultural production', even as such constructions came to inform nationalist artistic movements. Such transnational vectors, though tangential to this nationally (or linguistically) delimited thesis, have nevertheless been grazed at points, as French musicologists' reliance upon the work of philologists from across Europe has been noted. As musicology became institutionalised in other national contexts, philology remained a chief point of reference. This was clearly the case in Russia, for example, where scholars and composers appealed to central Asian, and particularly Caucasian, musical sources. These appeals were tied to a presumption of Greek and, by extension, 'aryan', vestiges preserved in the 'folk' music of those regions, as Adalyat Issiyeva has shown.[11] Such theories emerged in the musicology of Pyotr Sokal'skii and Alexander Femintseyn, who cited Bourgault-Ducoudray's collections toward the end of the nineteenth century.[12] Whether it is possible to rigorously join up these musicological discourses with the compositional work of famous folksong manipulators like Rimsky-Korsakov or Stravinsky is worth investigating (the latter

[9] See, e.g., Fulcher, *The Composer as Intellectual*, 18. Fulcher has pioneered an approach linking compositional practice with cultural politics in consecutive monographs across roughly the same historical span as this thesis. By zooming in on relationships between individual actors 'prior' to institutional or political affiliations, I have sought to highlight certain connections and continuities that are sometimes overshadowed in Fulcher's approach.
[10] 'Knowledge' and its mobilities is one of the themes by which Jürgen Österhammel charts his 'global' history of the nineteenth century, *The Transformation of the World* – one touchstone historiographical model for 'global' music histories; see ch. 16.
[11] Issiyeva, '"Connected by the Ties of Blood"'.
[12] Citations of Bourgault can be noted in, e.g.: Sokal'skii, *Russkaya narodnaya muzyka velikorusskaya i malorusskaya* (see, e.g., discussion of Bourgault's 'hybrid modes' on p. 101); and Famintsïn, *Drevnyaya indo-kitayskaya gamma v Azii i Yevrope*, 156n. My thanks to Marina Frolova-Walker for her help confirming Bourgault's presence and influence in these texts. See also, Brambats, 'Louis Albert Bourgault-Ducoudray and Baltic Folk Song Research', 275–8, for a similar observation with respect to Lithuanian folklorist Andrejs Jurjāns.

clipped a 1914 article by linguist Nikolai Marr, positing that vestiges of proto-Indo-European culture might be contained in the Caucasian languages and, specifically, in Georgian religious music).[13] Musicologists, folklorists, and composers in Spain[14] and England[15] too appropriated the philologically mediated, patrimonial logic of Bourgault by assimilating national folksong repertoires to ancient Greek 'modality' – to say nothing of how such discourse shaped musical nationalism in Greece itself.[16] The case of Germany, given that nation's centrality to historiographies of comparative philology, musicology, and aryanism, also deserves consolidated attention. Already, for example, Alexander Rehding has observed the importance of grammatical frameworks of Indo-European linguistics for musicologist Hugo Riemann, while David Trippett has demonstrated how comparative philology, especially the scholarship of the Brothers Grimm, shaped Wagner's thinking around the immanence of linguistic sound and musical meaning; more recently, Julia Kursall has shown how Carl Stumpf responded to the research of the Leipzig-based neogrammarian linguists;[17] the musicological work of German philologist Rudolf Westphal – whose research nourished francophone and russophone Indo-Europeanist musicology – remains to be more fully explored.[18] The transnationalism of philological networks is also tied to the mobilities, encounters, and interests of imperialism, which lies at the very roots of comparative philology itself – a coproduction of an Indian grammatical tradition codified by Pāṇini, and the British imperial impulse to effectively translate 'Hindu' legal texts[19] – and which would later mediate the audition and conceptualisation of sounds and languages elsewhere – in South East Asia or

[13] Taruskin, *Stravinsky and the Russian Traditions*, II, 1413. Marr was in dialogue with Meillet throughout his career – although the two were usually at odds. Part of an investigation into Russian contexts would involve untangling a knotty web of 'racial' terminology like 'aryan', 'Asian', 'Eurasian', and 'Turanian', whose usages in western European contexts seem not always to coincide with their uses in Russian contexts.
[14] See, e.g., Michael Christoforidis's discussion of Falla's reading of Bourgault's theories in *Manuel de Falla and Visions of Spanish Music*, ch. 12.
[15] See, e.g., Cecil Sharp's interest in and debts to Bourgault's theories in *English Folk-Song: Some Conclusions*. Sharp also believed in a common 'aryan' musical patrimony; see also, Lam, 'Relative Diatonic Modality in Extended Common-Practice Music', 144–5.
[16] See, e.g., Panos Vlagopoulos's discussion of the imprint of Bourgault's theories on Greek musical nationalism ('"The Patrimony of Our Race"'); and also, Kokkonis, 'L'altérité amadouée'.
[17] Rehding, *Hugo Riemann and the Birth of Modern Musical Thought*, ch. 4 (esp. 118ff); Trippett, *Wagner's Melodies*, ch. 5; Kursell, 'Listening to More Than Sounds' (esp. S46ff).
[18] Westphal's scholarship on Greek metre was perhaps the most important point of reference for Gevaert, although it was mainly in Westphal's later work that he embraced an Indo-Europeanist approach to metrical studies; see, e.g., his *Allgemeine Metrik der indogermanischen und semitischen Völker* (1891). Meanwhile, traveling in the Baltic states in the late 1870s, Westphal (who spent part of his career in Moscow) had authored an article in which he used Russian folksong as evidence of Russia's hellenic and aryan heritage ('O russkoi narodnoi pesne,' in *Russkii vestnik* 143 (1879)). This important article is referenced in discussions by Brambats ('Louis Albert Bourgault-Ducoudray and Baltic Folk Song Research', 274); Taruskin (*Stravinsky and the Russian Traditions*, I, 723); Frolova-Walker (*Russian Music and Nationalism*, 249), and Issiyeva, ('"Connected by the Ties of Blood"', §9).
[19] See again Trautmann, *Languages and Nations*, ch. 2.

Latin America, for example.[20] And as scholars of nineteenth-century France (within or beyond musicology) increasingly embrace postcolonial insights and decolonial stances,[21] they should not limit the scope of their analyses to French colonial realms, but incorporate such transcolonial flows and legacies, too; comparative philology and Indo-Europeanist nationalism, with their British imperial inheritance, are thus implicated as products and drivers of transimperialism even in the French historical context. And finally, to all of these extrapolations may be added constructions of aryanism's ultimate 'other' – semitism – as it grew from a linguistic construct to a 'racial' one and coalesced with preexisting forms of anti-Judaism and Islamophobia.

However, even as philological science and Indo-Europeanist ideology circulated and infiltrated musicological and musical practices globally, its imprint could in turn be shaped by institutional, political, and discursive factors specific to national or local contexts. For example, the trajectory of this thesis was facilitated by the centralised and consolidated makeup of French higher education, where intellectuals based at Parisian institutions like the Sorbonne, the Collège de France, the Conservatoire, the Schola Cantorum, or the Institut commingled professionally and socially; the German case would be shaped by different structural parameters.[22] National contingencies make a case like the British one especially complex: because of Britain's imperial occupation of India, British conceptions of an 'Indo-European' genealogy, though no less prevalent than elsewhere in Europe, proved especially fraught.[23] The ambivalence of British music(ologic)al engagements with Indian music(ology), variously mediated by contexts of Indo-Europeanist philology and imperialist politics (both subsumable under the colonial encounter) reflect these complexities.[24] Perhaps even more complex is the case of India itself, where ethnic (Hindu and/or aryanist) nationalisms have coexisted alongside decolonial nationalisms, and where the very idea of 'nationalism' itself

[20] See, e.g., Ochoa Gautier, *Aurality*, esp. ch. 3, on the role of comparative philology in Colombian contexts. Ochoa Gautier frames much of her discussion in terms of philology, and refutes the premise that comparative philology and musicology were mainly German disciplines (12).
[21] E.g., Forsdick and Yee, 'Towards a Postcolonial Nineteenth Century'.
[22] Particular enquiry might be made into potential musico-linguistic dialogues occurring in Leipzig, as a centre of institutionalised music(ologic)al instruction (and where Riemann was based), as well as of linguistic research (where Saussure went to be trained, for example) in the late nineteenth century.
[23] The implications of an Indo-European 'racial kinship' stood at odds with the premise of 'racial difference' which legitimated colonial power. Of the ideological confrontation between Indo-Europeanism and British imperialism, see Trautmann, *Aryans and British India*; and Mohan, 'The Glory of Ancient India Stems from her Aryan Blood'.
[24] A number of suggestive case studies which negotiate both of these contexts, and which might be productively revisited in light of philological mediation, may be found in van der Linden, *Music and Empire in Britain and India*; and Ghuman, *Resonances of the Raj*.

fatally reinscribes post-Enlightenment European constructions of 'rationalism' (upon which comparative philology is also premised), as Partha Chatterjee has argued.[25] For musicologists increasingly interested in 'global' historiography,[26] such complexities need not be viewed as obstacles to drawing meaningful connections, but as precisely the consequences – fruits, even – of historical enquiry on a transnational scale. The mediations of comparative philology and Indo-Europeanism produced links between conventionally nationalised histories – including some historical domains which have persistently been exiled to subdisciplinary areas within musicology – and throw local responses (and resistance) into relief. If the case of 'Mode de valeurs' is indicative, attention to these mediations, plus an open mind, will lead to further unanticipated findings.

While this thesis has thematised the relationship between intellectual history and musical composition, the fact of such a relationship is not a given. Not only does it engage a number of ideological preconditions regarding the nature of both 'knowledge' and 'music'; it also requires structures and institutions to facilitate the coalescence of the two. In *fin-de-siècle* France, there were many such facilitators: 'early music' revival concerts, which developed performers' and audiences' taste and demand for 'classic' repertoires; music history courses, which became obligatory for Conservatoire pupils of composition; or organisations like the Schola Cantorum, where the historically oriented curriculum was designed to counterbalance the perception of the Conservatoire as an operatic production line; to name a few. Having seen how such intellectual frameworks and epistemological paradigms have shaped musical production relationally in a historical context, we might reflect upon similar processes occurring today. At the institution now known as the Conservatoire national supérieur de musique et de danse (CNSMD) de Paris, composers have increasingly broadened their intellectual interests: if one generation of composers had been loath to hear about 'modes' in Bourgault-Ducoudray's history lectures, a younger generation queued up to do just that in Messiaen's wide-ranging 'analysis' courses – and though neither was a course in 'composition', composers with a certain attitude did not let that stop them from absorbing

[25] Chatterjee, *Nationalist Thought and the Colonial World*, 10–11. Some of these complexities are reflected in the nationalist (and anti-Muslim) music(ologic)al discourse of Kshetra Mohun Goswami or Sourindro Mohun Tagore (see, e.g., Capwell, 'Representing "Hindu" Music to the Colonial and Native Elite of Calcutta'; and Williams, 'Music, Lyrics, and the Bengali Book', 474ff) and in the Tamil music movement (see Weidman, *Singing the Classical, Voicing the Modern*, ch. 4).

[26] See, e.g., the Balzan Musicology Project *Toward a Global History of Music*, directed by Reinhard Strohm and culminating in three edited volumes between 2018 and 2020. Reflections on this project are expressed in Strohm, 'The Balzan Musicology Project *Towards a global history of music*, the Study of Global Modernisation, and Open Questions for the Future'.

valuable lessons. Today, composers choose among any one of the Conservatoire's 'musicological' courses (analysis, history, or aesthetics, or a dedicated course in 'culture musicale'); and not to be outdone by universities, the CNSMD even houses its own musicological research initiatives and degree programmes.[27] These developments suggest that discussions begun nearly two centuries ago regarding the institution's cultural and educational roles – as not only a producer of musicians, but also of musical 'knowledge' – remain ongoing.

One of the results of these discussions was the introduction of ethnomusicology at the CNSMD de Paris in 1996; since then, further elective options have been introduced, including a course in gamelan performance and even one titled 'Improvisation modale/musique de l'Inde'.[28] On one hand, this plainly reflects today's increasing 'internationalization of musical life'.[29] Yet, if the historical conception of the 'conservatoire' implied, ipso facto, the 'preservation' of a musical 'tradition' at a level of mastery, one might reflexively question the function played by (potentially dilettantish) instruction in musical traditions marked as foreign and 'elective'. To ask as much is not to dispute the 'value' of 'other' musical traditions, but rather to reflect upon the ideologies that underpin the notion that the availability of instruction in a variety of musical traditions should enhance the education offered by the Paris Conservatoire in particular. When Bruno Messina took up the ethnomusicology professorship in 2004, then-director Alain Poirier explained his vision for the role: 'I didn't want [to recruit] a disc jockey who would just play 'world music' discs. I wanted someone who asks questions, building bridges between worlds; someone who could make students understand that there are matters elsewhere that are relevant to us here'.[30] (Ethno)musicology at the Conservatoire, therefore – today as in the 1870s – serves an

[27] In January 2020, the French Ministry of Culture issued an 'Appel à projets Recherche dans les établissements d'enseignement supérieur musique', acknowledging that 'la recherche est devenue une composante de plus en plus présente dans les enseignements supérieurs artistiques' (https://www.culture.gouv.fr/Aides-demarches/Appels-a-projets/Appel-a-projets-Recherche-dans-les-etablissements-d-enseignement-superieur-musique-2020) [accessed 11 May 2020]. The musicological research being targeted by this call should not be confused with (though it may be related to) longstanding advocacy for musical composition to qualify as scientific research (on which, in a French context, see, e.g., Born, *Rationalizing Culture*).

[28] Descriptions of each of the modules evoked here, based on the prospectus for the 2019–20 academic year, can be found on the website of the CNSMD de Paris (http://www.conservatoiredeparis.fr/disciplines/les-disciplines/) [accessed 11 May 2020].

[29] William Weber has thus characterised expanding conservatoire curricula more generally; 'Conservatories' §I, *Grove Music Online*.

[30] Messina quoting Poirier in Campos, *Le Conservatoire de Paris et son histoire*, 253; '"...je ne voulais pas un *disc jockey* qui passerait des disques de musiques du monde. Je voulais quelqu'un qui pose des questions, construisant des ponts entre les mondes, quelqu'un qui fasse comprendre aux étudiants qu'il y a ailleurs des questions qui nous concernent ici."'

intellectual, and artistic, agenda: to challenge composers with new perspectives, generate engagement and friction, and thereby enrich French music. Indeed, rather than posing a challenge to a 'national' musical tradition, the Conservatoire's institutionalisation of interculturalism is a twenty-first-century take on a longstanding point of French musical pride: as Bourgault-Ducoudray beseeched in 1878, 'all modes, old or new, European or foreign, given the mere fact that they can stir an impression, should gain citizenship among us and may be used by composers';[31] as Lionel de La Laurencie proclaimed in 1913, 'French music, even in affirming the characteristics of our race, has profoundly imbued itself with elements borrowed from beyond the national territory'.[32] More than a disinterested reflection of 'globalisation', the Conservatoire's curricular decisions tap into long-held values – a universalist gaze and omnivorous appetite – that are among the most singularly and enduringly 'French' artistic traditions of all – and which, by all appearances, will continue to resonate in the French music of tomorrow.

[31] Bourgault-Ducoudray, 'Conférence sur la modalité dans la musique grecque', 47; 'tous les modes, anciens ou modernes, européens ou étrangers, par cela seul qu'ils sont aptes à engendrer une impression, doivent conquerir droit de cité parmi nous et peuvent être employés par les compositeurs'.
[32] La Laurencie, in *EMDC*, III, 1362; 'la musique française, tout en affirmant les caractéristiques de notre race, s'est profondément imprégnée d'éléments puisés en dehors du territoire national'.

APPENDICES

APPENDIX A

Personalia

This personalia appendix, comprising entries on a selection of secondary actors and by design inexhaustive, is compiled with two main functions in mind: (1) to provide basic information regarding important figures (in particular, philologists) who may not be familiar to a general musicological audience; and (2) to draw attention to the presence in this thesis of more familiar figures who make appearances in multiple chapters – appearances which may appear unconnected, but which bind together the networks of philologists, musicologists, and composers in important ways.

Because basic biographical information can be easily referenced in sources like *Grove Music Online* or the *Dictionnaire des orientalistes de langue française* (ed. François Pouillon), the entries below are tailored to each figure's relevance within the networks of the thesis. For this reason, references to chapters containing further discussion are indicated in parentheses.

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Michel Bréal (1832–1915), born in Germany to French Jewish parents, studied comparative philology with Franz Bopp. He became professor at the Collège de France in 1864, is credited with founding the sub-field of semantics, and helped popularise Max Müller's theories, including of a solar mythology central to Indo-European spirituality, into French (Ch. 5). Bréal taught Antoine Meillet, mentored Maurice Emmanuel, and worked closely with Gaston Paris (Ch. 3). As *inspecteur général* for higher education from 1879–1888, he met Joanny Grosset in Lyon and praised his work (Appendix B). Through his daughter, Clotilde, Bréal became father-in-law of Romain Rolland, and later, following their divorce, of Alfred Cortot.

Antoine Dechevrens (1840–1912), Swiss Jesuit musicologist and important voice in debates about plainchant restoration. Like the Benedictines at Solesmes, Dechevrens believed in the palaeographic method of recovering Gregorian chant from manuscript study (on this basis, he was dismissive of efforts by Émile Burnouf or Jacques-Nicolas Lemmens who attempted restitutions in the absence of manuscripts); unlike the Benedictines, he realised his reconstructions according to a mensural structure and strenuously opposed their unmeasured, 'free rhythmic' approach (Ch. 2). Dechevrens disputed with Pierre Aubry in a series of publications in 1903–4 regarding the origins of Eastern Orthodox chant traditions; for Dechevrens, these practices contained 'pure' traces of early Christian practice, whereas for Aubry, they were contaminated by geographically proximate Ottoman musics (Ch. 3).

Paul Dukas (1865–1935), French composer, critic, and pedagogue; trained at Conservatoire with Ernest Guiraud. His enthusiasm for orientalist and comparative religious scholarship is well attested, and gave rise to musical projects such as his opera project *L'Arbre de science* (1899, destroyed) and his 'poème dansé', *La Péri* (1911). He reviewed favourably the musicological work of Émile Burnouf, published by the Librairie de l'art indépendant (Ch. 2). His successful opera, *Ariane et Barbe-bleue* (1907) was held up by some critics (notably Édouard Dujardin) as a triumph of 'aryan' music, despite what Dujardin called Dukas's 'exotic' (i.e., Jewish) family background (Ch. 6). As professor of composition at the Conservatoire, Dukas taught many composers who became noted for their 'modal'

compositional techniques, including Jean Langlais, Jehan Alain, Darius Milhaud, and Olivier Messiaen (Ch. 8).

Émile Egger (1813–85), French philologist and hellenist, founding member (alongside Émile Burnouf, Egger, Renan, Vincent, and others) of the Association pour l'encouragement des études grecques. Hosted Bourgault-Ducoudray in his salon after the latter's return from Greece, inviting him to present his research for the Association (Ch. 2). His *Notions élémentaires de grammaire comparée* (1855), revised and reprinted many times, was a valuable philological reference source for Mocquereau, Combarieu, and others (Ch. 3).

Louis Havet (1849–1925), French hellenist who made important contributions to the study of Greek and Latin metre and prosody. Founding member (alongside Émile Burnouf, Egger, Renan, Vincent, and others) of the Association pour l'encouragement des études grecques. As professor at the Sorbonne and later the Collège de France, he taught Antoine Meillet and Maurice Emmanuel. He remained friendly with both, and supported the campaign on Emmanuel's behalf for professorship at the Collège de France. Meillet would critique Havet's theories of Greek metre in *Les Origines indo-européennes des mètres grecs* (1923) (Ch. 3).

Vincent d'Indy (1851–1931), Parisian composer, pedagogue, and co-founder of the Schola Cantorum. His deep investment in music history brought him into close collegial relationships with musicologists such as Aubry and Bourgault-Ducoudray. Along with these two, Meillet, and Paris, he patronised the Soirée d'art arménien in 1903 (Ch. 3). Like Bourgault, d'Indy published arrangements of folksongs from French regions, notably the Vivrais (Ch. 5). He dedicated his second Symphony to Paul Dukas, who imitated a melody from it in *Ariane et Barbe-Bleue* (Ch. 6). Albert Roussel, Louis Laloy, and Déodat de Séverac were among his composition pupils (Ch. 7). The imprint of aryanist ideologies on d'Indy acts as something of a foil for the narrative of this thesis: d'Indy's aryanism is more immediately shaped by Wagner than by comparative philology, manifesting in the epic narrative arcs, and explicit antisemitism, of dramatic works such as *La Légende de Saint-Christophe* (1908–15).

Louis Laloy (1874–1944), French musicologist, hellenist, and sinologist. He completed a doctoral thesis on Aristoxenus and ancient Greek music (1904), studied with d'Indy at the Schola Cantorum, and learned Chinese under Arnold Vissière at the École des langues orientales vivantes. As a musicologist and critic, he contributed to Combarieu's *Revue musicale* (Ch. 3) before co-founding the *Mercure musical* in 1905; he reviewed the first volume of Lavignac's *Encyclopédie de la musique*, including chapters by Joanny Grosset and Maurice Emmanuel, for *Comœdia* in 1914 (Ch. 4). He was a friend and early advocate of Debussy, defending in 1905 the composer's controversial prosodic approach in *Pelléas et Mélisande* (Ch. 3). He was in the running alongside Emmanuel to succeed Bourgault-Ducoudray as history professor at the Conservatoire in 1909 (he would eventually succeed Emmanuel in this role from 1936). An occasional librettist, Laloy collaborated with Albert Roussel on the opéra-ballet, *Padmâvatî* (Ch. 7); he also became secrétaire-général of the Opéra in 1914.

Gaston Paris (1839–1903), philologist, historian, and professor medieval French literature at the Collège de France. He tied the medieval genre of the *fabliau* into an Indo-Europeanist genealogy. Paris collaborated with François-Auguste Gevaert on *Chansons du XVe siècle* (1875), an edited collection of fifteenth-century songs. In 1878, he was a founding

contributor, alongside Bourgault-Ducoudray, to *Mélusine: revue de mythologie, littérature populaire, traditions et usages* (Ch. 2). Paris frequented the Cercle Saint-Simon during the 1880s, as did Bourgault, Maurice Emmanuel, Julien Tiersot, and Jean-Baptiste Weckerlin. Paris mentored Emmanuel – who attended his Collège lectures in the 1880s – and introduced him to Gevaert in 1896; and supervised Pierre Aubry's doctoral thesis at the École des Chartes, calling upon Bourgault to be on the examining jury (Ch. 3).

Adolphe Pictet (1799–1875), Swiss comparative philologist, famous for his efforts to reconstruct 'proto-Indo-European culture' via his methodology of 'linguistic palaeontology' (*Les origines indo-européennes ou les Aryas primitifs*, 1859). He was a close friend of Franz Liszt, and recounted an episode of their friendship in his novel, *Une course à Chamounix* (1838). His work was cited by Fétis, his method appropriated by Gevaert (Ch. 1). Pictet was the first teacher of Saussure, who in turn taught Meillet (Ch. 3). Pictet used the proper term 'Ariane' to refer to the earliest Indo-Europeans – an unusual usage which may resonate in later dramatic 'Arianes', such as those of Massenet or Dukas, or is at least projected onto them by Édouard Dujardin (Ch. 6).

Paul Regnaud (1838–1910), French linguist and indologist. Having trained in Paris at the École pratique des hautes études, he was appointed to the faculty of Lyon, where he opened the first courses in Sanskrit in France outside Paris. Regnaud's work on comparative philology and on Sanskrit rhetoric was consumed and cited by Jules Combarieu in his thesis on music and poetry (Ch. 3). In 1880, Regnaud undertook edition of a chapter of Bharata's *Nāṭyaśāstra*, a Sanskrit musical-dramatic treatise; this project was continued in the following decades by his student Joanny Grosset, who became an important scholar of ancient Indian music (Ch. 4, Appendix B). In 1897, Regnaud authored a study of the 'Vedic sources' of 'Petit Poucet,' one of Charles Perrault's *Mother Goose* tales, dedicated, with a lengthy tribute, to Gaston Paris.

Théodore Reinach (1860–1929) was a polymath who distinguished himself in particular as a hellenist, archaeologist, philologist, and musicologist. He and his brothers, Joseph (1856–1921) and **Salomon** (1858–1932) formed an imposing trio of French Jewish engaged intellectuals: Joseph was a politician, and among the most prominent Dreyfusards; Salomon was a philologist and archaeologist who briefly participated in digs led by the École française d'Athènes (shortly after Émile Burnouf's time there), and authored a powerful critique of efforts to extrapolate the Indo-European hypothesis to realms beyond the linguistic with his *L'Origine des Aryens: histoire d'une controverse* (1892) (see Introduction). Théodore, the most musical of the three, collaborated with Gabriel Fauré to reconstruct and prepare for performance the 'Hymne à Apollon' discovered at Delphi in 1893 (Ch. 6); this transcription informed Emmanuel's research on Greek music (Ch. 7). As librettist, Théodore collaborated with Albert Roussel on *La Naissance de la lyre* (1923), and with Maurice Emmanuel on *Salamine* (1921–7) (Ch. 8). As musicologist, he published *La musique grecque* (1926).

Romain Rolland (1866–1944), musicologist, author, and political polemicist whose involvement in musicological circles and interest in India make him worthy of inclusion here as a foil to discourses evoked in the thesis. Along with Jules Combarieu, Rolland was among the first to receive a doctorate with a musicological thesis (1895); while the two co-founded the *Revue d'histoire et de critique musicales* in 1900 (Ch. 3), Rolland soon departed over differences in the direction of the journal. He became the first professor of music history at

the Sorbonne in 1903. Rolland's musicology was more historical and cultural than philological, specialising in early opera, Handel, and Beethoven. His intellectual stance, like his political stance, was resolutely antinationalist and universalist. Though drawn to Hindu philosophical sources in search of spiritual wisdom following World War One, Rolland's primary investment in India was politically motivated: he embraced the cause of anti-imperial resistance (though remained sceptical of incipient nationalism), and maintained close dialogues with Rabindranath Tagore, Mohandas Gandhi, and Jawaharlal Nehru.

Charles-Émile Ruelle (1833–1912), hellenist and student of Alexandre-Joseph Vincent, Ruelle's musicological scholarship included studies of Aristoxenus, a collection of translations of ancient Greek authors on music, and a report on Greek manuscripts held in Spain. Bourgault-Ducoudray arranged to meet with Ruelle prior to his second Greek mission; Ruelle helped Bourgault publicise his findings upon his return, with reviews in musicological and philological journals (Ch. 2). Ruelle, alongside Émile Burnouf, Charles Gounod, Alexandre Guilmant, and Jacques-Nicolas Lemmens, sat on the panel for Bourgault's lecture at the 1878 exposition (Ch. 2). He presented research at the *Premier congrès international de l'histoire de la musique* in 1900, and was also among those enlisted by Jules Combarieu to figure on the masthead of the *Revue d'histoire et de critique musicales* (Ch. 3).

Julien Tiersot (1857–1936), musicologist, folklorist, and Conservatoire librarian assisting, then succeeding, Jean-Baptiste Weckerlin. Tiersot studied composition with Massenet and history with Bourgault-Ducoudray. He attended meetings of the Cercle Saint-Simon, and later organised that society's concert series. Intellectually, Tiersot was more interested in musical ethnography than philology: he compiled his *Notes d'ethnographie musicale* in 1905 (in which he was dismissive of Indian music heard at the 1900 exposition), and contributed a chapter to Lavignac's *Encyclopédie* on the music of sub-Saharan Africa. He became renowned for his folksong collections, although his tonal (rather than modal) practice of harmonisation diverged from that of Bourgault and Emmanuel (Chs. 3 & 5).

Jean-Baptiste Weckerlin (sometimes, **Wekerlin**) (1821–1910), composer, folklorist, and Conservatoire librarian (succeeding Félicien David in 1876). His folksong collections from the 1850s, for which he collaborated with Champfleury, are early and important contributions to the genre; Weckerlin's tonal harmonisation practice established a standard against which Bourgault would contrast his modal approach in the following decades (Chs. 2 & 5). As a composer, Weckerlin explored facets of Indian music in *Inde* (1865) and *Souvenirs de l'Inde* (1896), and in his unpublished 'Râgas de l'Inde' (1874, rev. 1889). He attempted to translate an Indian musicological treatise from English to French (*Catechism of Hindu Music* by Mohindro Lall Seal, 1890), but abandoned this project in frustration (Ch. 7). Weckerlin's direct engagement with philological theories of Indo-Europeanism appears minimal.

Rudolf Westphal (1826–1892), German comparative philologist with particular interest in Greek music and metre. His scholarship profoundly shaped that of François-Auguste Gevaert (Ch. 1), although certain theorists, such as Maximilien Kawczyński, critiqued Westphal's 'racial'-deterministic perspective (Ch. 3). Based in Moscow during the late 1870s, Westphal studied Russian and Baltic folk music, declaring these to preserve, better than anywhere else the 'ancient Aryan foundation'. This declaration motivated the research of Russian folklorists such as Pyotr Sokal'skii and Alexander Femintseyn, and may indeed have shaped Russian composers' attitudes toward folklorism, including those of Rimsky-Korsakov and Stravinsky

(see Conclusion). In 1892, he authored *Allgemeine Metrik der indogermanischen und semitischen Völker*.

Henry Woollett (1864–1936), French composer and author mainly based in Le Havre. He studied composition briefly with Jules Massenet. Woollett wrote a popular four-volume *Histoire de la musique* (1909–25), the first volume of which won him the Prix Bordin of the Académie des Beaux-Arts in 1910. The sections on ancient music rely heavily on Bourgault-Ducoudray's aryanist theories (Ch. 2), and echo his call for a 'modal' compositional future. He experimented thus in a collection of piano études using 'exceptional modes' (1910). Woollett's *Histoire* promulgates the notion, long after it had fallen from philological favour, that India was the 'cradle of civilisation'. A close friend of Albert Roussel's, Woollett met with Roussel during the latter's composition of *Padmâvatî*.

APPENDIX B

Joanny Grosset: biographical and professional précis

Jean-François-Jules ('Joanny') Grosset (b. Lyon, 29 March 1862; d. Lyon, 12 February 1931) had a precocious start.[1] As a lycéen in the late 1870s, his name appeared more frequently than any of his classmates' in the annual prize announcements printed in *Le Salut public*, one of the Lyon dailies. He showed a particular knack for languages, winning consecutive accessits or prix in Latin, Greek, French, and English.[2] He was invited to complete his secondary education at the Lycée Louis-le-Grand in Paris, after which he was prepared to enter the École normale supérieure. Instead, he desired to obtain a scholarship toward an *agrégation de grammaire*, ideally in Paris, where he could pursue the study of Sanskrit to which he had already taken.[3] Obtaining only a half-scholarship, however, Grosset elected to remain in Lyon, where he secured funding contingent on a commitment to ten years' service to public education (*engagement décennal*), which had the added (or perhaps primary) advantage of exempting him from military service.

At university, Grosset sat a range of subjects in view of a *licence ès lettres*, and subsequently his *agrégation*; quickly, however, his particular predilection for Sanskrit consumed his other studies. Lyon had become, after all, the first French city outside Paris to offer Sanskrit instruction, when a post was created for the Paris-trained linguist Paul Regnaud in 1879.[4] Before long, Grosset's infatuation with Sanskrit began raising eyebrows; as the dean wrote, reprimanding Grosset after his 1883–84 report card showed a laudable mark of 15 (out of 20) in Sanskrit and a lamentable 3 in Latin: 'Mr Grosset's marks pose a rather strange problem. This scholarship holder, though clearly not lazy, has neglected all of his more pressing assignments in favour of Sanskrit and Egyptology'.[5] In reply, Grosset's contrition was tempered by an intellectual defence, expressed in a letter to the dean:

> I've been accused of not following through, of undertaking many things which are useless or extraneous to my goals. This reproach of frivolity is perhaps unfounded. I was delighted by Mr Lefébure's return in order to do some Egyptology. The study of this semitic language would, as I saw it, provide points of comparison with the Indo-European languages. I thought it useful to pursue the study of both head-on, and to illuminate the complex grammar of the Hindus by means of the embryonic grammar of the Egyptians. I may have been wrong, but I had a clear idea of the studies I believed I could undertake.[6]

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[1] The information in the following paragraphs mainly draws upon sources at F-Pan, F[17] 23130 & 23347; F-LYad, 1T/273 & 279, and 2399W/4; and selected press clippings.

[2] See, e.g., *Le Salut publique* (Lyon) on 8/viii/1876, 10/viii/1877, 8/viii/1878, 9/viii/1879, and 8/viii/1880.

[3] F-Pan, F[17] 23347, 8; 10.

[4] Regnaud, 'L'Enseignement du Sanscrit à l'université de Lyon', 498. Course catalogues from the Faculté de lettres de Lyon (F-Pan, F[17] 13150) provide information on the material covered in Regnaud's courses on Sanskrit and comparative/historical grammar during these years. Regnaud was a linguistic 'naturalist' in the tradition of Honoré Chavée and Abel Hovelacque, believing that languages developed in accordance with natural laws, in a manner akin to living organisms. For an in-depth review of Regnaud's linguistic philosophy, see Desmet, *La linguistique naturaliste en France*, esp. 351–95.

[5] F-Pan, F[17] 23347, 5, cover letter signed Guillaume-Alfred Heinrich, dean; 'Ces notes de M. Grosset posent un problème assez étrange. Ce boursier, sans être oisif, a négligé tous ses devoirs immédiats pour faire du Sanscrit et de l'Égyptologie.'

[6] F-Pan, F[17] 23347, 7, letter from Grosset to M. le Doyen, dated 17/vii/1884; 'On m'a à ce sujet reproché de manquer d'esprit de suite, et d'entreprendre beaucoup de choses ou inutiles ou peu appropriés à mon but. Ce reproche de légèreté n'est peut-être pas fondé. J'ai été heureux du retour de Mr. Lefébure pour faire un peu d'égyptologie. L'étude de cette langue sémitique devait dans mon esprit me fournir quelques points de

The dean was further implored by certain of Grosset's professors (Regnaud likely first in line) to take an 'indulgent' approach to his case, and Grosset was permitted to pursue his studies.

Grosset continued to excel in Sanskrit. His dedication was noticed by Michel Bréal, the esteemed philologist (with whom Meillet and Emmanuel had studied) who in those years was serving as inspecteur général for higher education, and who may have looked more favourably than most on a rising star in academic Indology.[7] Regnaud nurtured Grosset's interest by providing him opportunities for advancement, and likely nudged Grosset toward the study of Sanskrit texts on music during these years. Regnaud had been studying the *Nāṭyaśāstra* ('Treatise on Drama') of Bharata Muni – a foundational treatise on music and theatre composed roughly two millennia ago.[8] Regnaud's main focus had been Bharata's chapters concerning poetry, metre, and rhetoric, and he had published editions of three chapters of the *Nāṭyaśāstra* (Chapters 15–17) in 1880.[9] Building on Regnaud's work, Grosset first broached Chapter 28, which he claimed contained 'the most important part of the Hindus' music theory'.[10] The fruit of that work, a critical edition, was published the collection *Mélanges de philologie indo-européenne* in 1888 under Regnaud's direction. Grosset's introduction to the chapter sets out his intellectual stance, remarking upon the importance of studying ancient India, as a 'civilisation' which 'reaches back to the earliest appreciable manifestations of the Indo-European race to which we belong'.[11] Comparing music's relationship to poetry in India and Greece, he drew upon the research of Karl Ottfried Müller and Émile Burnouf, among other names familiar from this thesis, and explained the need to supersede the secondhand work of Fétis. Grosset was proud enough to send an inscribed copy of the offprint to Renan.[12]

Meanwhile, however, Grosset became embroiled in what he perceived as distractions from his scholarship. In an apparent effort to evade the teaching responsibilities to which he was obligated by his *engagement décennal*, he obtained an appointment as assistant librarian at the faculté de droit, hoping that such a post would grant him time to dedicate to his research.[13] Yet, numerous reports from various managers describe him as indignant and interested only in his own pursuits.[14] These sentiments were exacerbated by Grosset's requests for consecutive years of medical leave on what several suspected were spurious grounds; several of these requests were granted, but not without scepticism: 'Mr Grosset has not given a favourable impression of his capabilities as a librarian. The leave he asks for may be accorded to him, but

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comparaison avec les langues Indo-Européennes. Je croyais utile de mener les deux études de front et d'éclairer la grammaire compliquée des Hindous par l'étude de la grammaire à l'état embryonnaire des Egyptiens. J'ai pu me tromper, mais j'avais une idée claire des études que je croyais pouvoir entreprendre.'

[7] F-Pan, F[17] 23347, 9.

[8] Lewis Rowell places the composition of the *Nāṭyaśāstra* in 200 C.E., and says it contains 'the earliest and most detailed information on all aspects of the ancient musical system' (*Music and Musical Thought in Early India*, 19).

[9] Bharata Muni, *Le dix-septième chapitre du Bhâratîya-Nâtya-Çâstra*, ed. Regnaud; and Bharata Muni, *Métrique de Bharata, texte sanscrit de deux chapitres du Nâtya-Çâstra*, ed. Regnaud.

[10] Grosset, 'Contribution à l'étude de la musique hindoue', 17; 'Ce chapitre...renferme la partie la plus importante de la théorie musicale des Hindous'.

[11] Ibid., 3; 'remonte aux premières manifestations appréciables de la race indo-européenne à laquelle nous appartenons.'

[12] F-Pn, Z RENAN-3908.

[13] An unsigned letter dated 12/x/1888 recommending Grosset for a librarianship notes that with such a post, '[il] pourrait continuer la préparation des thèses déjà fort avancées'; F-Pan, F[17] 23130, 25.

[14] See, e.g., F-Pan, F[17] 23130, 16, 28, 29. In the words of one particularly snide manager, 'Il a quelque chose de l'homme qui n'a jamais abouti, ne se résigne pas, et cherche sa revanche. Or ce n'est pas dans les Bibliothèques qu'il compte la trouver.'

without payment. I believe what he really wants is to have some leisure time for his studies'.[15] The notion that Grosset's claims of illness were disingenuous may be partially corroborated by one letter, in which he requested medical leave unless he could get a lectureship instead.[16] Grosset managed to sustain successive absences from 1889–92, at which point he was dismissed – placing his compliance with the *engagement décennal* in jeopardy.

At this point, Regnaud came to Grosset's rescue. He began by endorsing Grosset's ambitious project to produce a three-volume critical edition of the complete *Nāṭyaśāstra* under the auspices of the *Annales de l'université de Lyon*. Upon review of the initial proposal in March 1892, the editorial committee was reluctant to adopt the project, as Grosset could show no evidence of research in progress; it was largely because of Regnaud's advocacy – and Grosset's agreement to cover costs exceeding a predetermined budget – that the publisher acquiesced.[17] In September of that year, using this project as leverage, Regnaud sought to intervene further by writing a letter of introduction to the Ministre de l'instruction publique, with the dual purpose of regularising Grosset's *engagement* and finding him a worthy post:

> Mr Grosset is currently occupied with a grand scholarly project, the edition in the Annales de l'université de Lyon of the unpublished text of the Sanskrit treatise of theatre by the famous Bharata. I mean to convey, Monsieur le Ministre, how much he requires peace of mind, of which his current battles deprive him.
>
> Might I add that he is one of the rare Sanskritists of the future, upon whom rest France's hopes for progress in this area of science. Thus should I dare to recommend him for your appointment to a Sanskrit course in a faculté de lettres or for an analogous post at the École des Hautes Études. If such a thing were possible, the question regarding his *engagement décennal* would be resolved, and by the same token, he would see his scholarly career assured.[18]

Grosset himself produced a list of 'desiderata', enumerating potential sources of employment – including posts at the faculté de Lyon or the École des Hautes Études, or else working in the Indian manuscripts division of the Bibliothèque nationale. By October, Grosset had his response: none of the posts he dreamt of could be made available.[19] It is impossible to know whether this result was the truth or a cover; however, internal correspondence shows that the ministry was aware of Grosset's abysmal track record as a librarian.

Over the 1890s, as he worked on his *Nāṭyaśāstra*, Grosset continued making enemies. When he decided to stand to represent the sixth arrondissement of Lyon for the 'Comité républicain

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[15] Letter from the rector of the Académie de Lyon to the Ministre de l'instruction publique, F-Pan, F[17] 23130, 20; 'M. Grosset n'a pas donné de sa capacité comme bibliothécaire une idée favorable. Le congé qu'il sollicite peut lui être accordé, mais sans traitement. Je crois qu'il vise surtout à avoir du loisir pour poursuivre ses études'.

[16] Letter dated 2/xii/1892, F-Pan, F[17] 23130, 8.

[17] F-LYad, 1T/279. Regnaud noted that the *Annales* consented to the publication on the condition that Regnaud provide a preface (Bharata Muni, *Bhāratīya-nāṭya-çāstram*, p. ii). Later, when an enquiry sought to determine what went wrong with Grosset's publication, no paper trail of Grosset's agreement to pay the surplus could be located.

[18] Letter from Paul Regnaud to the Ministre de l'instruction publique [Léon Bourgeois] dated 23/vii/1892, F-Pan F[17] 23130, 11bis; 'M. Grosset s'occupe en ce moment d'un grand travail d'érudition, la publication dans les Annales de l'université de Lyon du texte inédit du traité sanscrit sur l'art théâtral du célèbre Bharata. C'est vous dire, Monsieur le Ministre, combien il aurait besoin de la tranquillité d'esprit que lui enlèvent les ennuis auxquels il est en lutte. Je puis ajouter qu'il est un des rares jeunes sanscritistes d'avenir sur lesquels repose en France l'espoir des progrés [sic] de cette partie de la science. J'oserai à ce titre le recommander à votre choix pour une conférence de sanscrit dans une Faculté de Lettres ou pour un poste analogue à l'Ecole des Hautes Etudes. Si la chose était possible, la question relative à son engagement décennal serait résolue, et du même coup il verrait sa carrière scientifique assurée.'

[19] Letter from Georges Francière to Grosset dated 13/x/1892, F-Pan F[17] 23130, 10.

progressiste et groupe d'études sociales' in the municipal elections of 1898, he was pilloried in a broadside accusing him of a litany of injustices – fraudulent acquisition of a state scholarship, for which he had little to show (only a *licence* after seven years' university study); evasion of military service through the *engagement décennal*, which he failed even to complete; incompetence; arrogance; embezzlement; insubordination; adultery; and plenty more (Fig. B.1).[20] Grosset finished last place in the election. During these same years, he experienced significant changes in his personal life: his father, Jean-Louis ('Jules') Grosset, died in 1897; and on 4 March 1899, Joanny married Tonine Henriette ('Antonine') Mure.

Meanwhile, the *Nāṭyaśāstra* languished under persistent setbacks; as one professor wrote to the rector in 1894, the Sanskrit manuscript 'is coming along very slowly; but the author alone is responsible for the delay, which strongly resembles an interruption'.[21] Finally, in December 1898, Grosset turned in the first volume, which fell considerably short of its expected scope, even as it ran significantly over budget. An inquest, led by Professor Alfred Coville, was opened to investigate what had gone so wrong; and although it was found that Grosset was largely to blame for the numerous delays (and that the university would not pursue publication of subsequent volumes), Coville also took pains to note the scientific significance of Grosset's research, the rigour with which it was executed, and the international recognition that it had attracted.[22] Not least among these honours was the Prix Saintour of the Académie des inscriptions et de belles lettres.

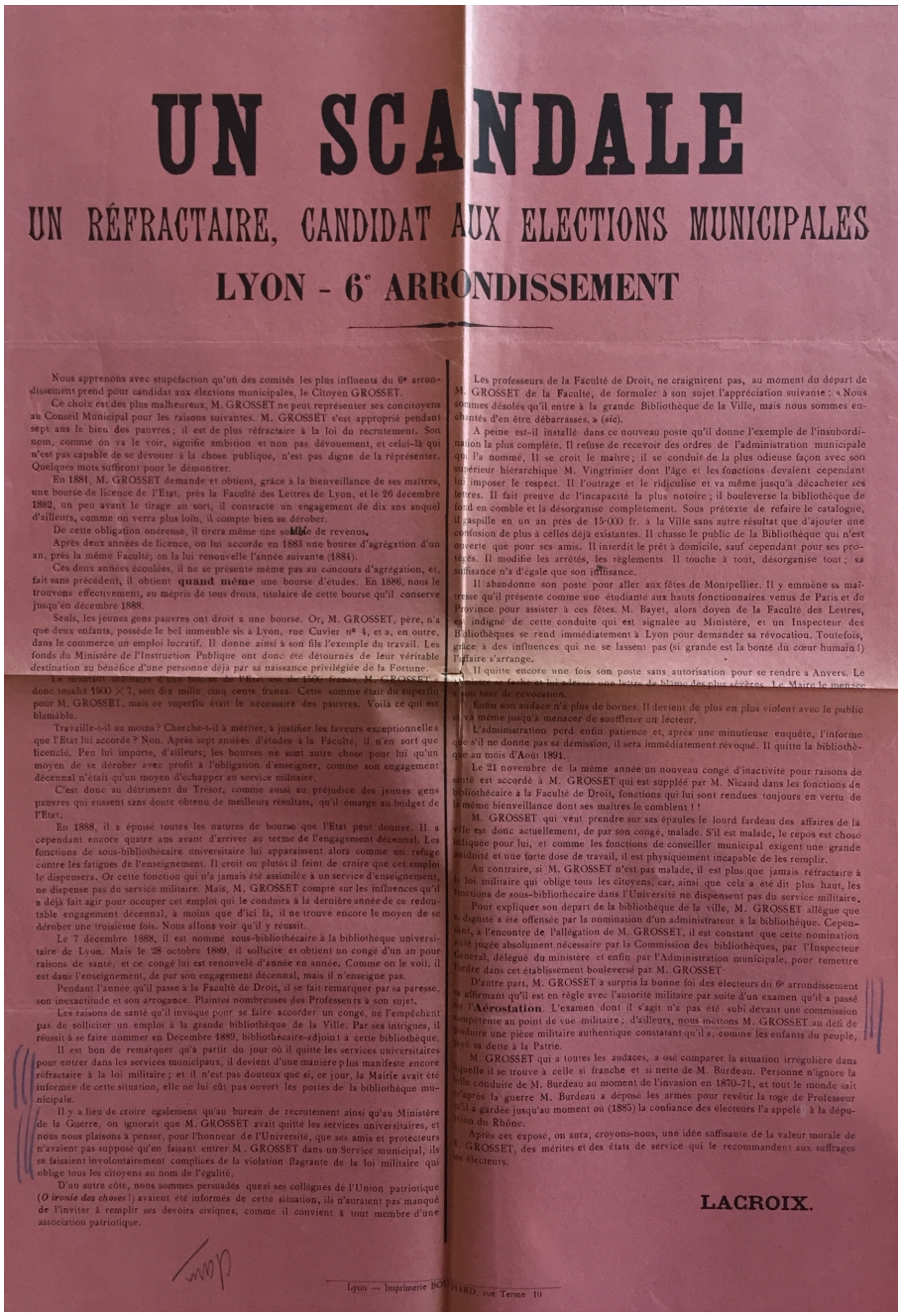
By the end of the decade, Grosset's stature within the university hit a high-water mark: he had been one of Lyon's delegates, alongside Regnaud, to the XI^{ème} Congrès des orientalistes in Paris (1897), where he served as one of three secretaries for the section on 'Pays Aryens' and presented his *Nāṭyaśāstra*-in-progress to general acclaim.[23] Grosset was finally accorded limited teaching of Sanskrit in 1897–98 (allowing Regnaud to open a new course in 'Indo-European civilisation'), and even a 'cours autorisé' in 1899–1900.[24] But this privilege was short-lived: Grosset taught no further courses for the faculty after 1900 (at least officially), and I have found no records in the archives suggesting how he occupied himself until his death in 1931. The preponderance of testimony from a wide range of quarters suggests, therefore, that Grosset was a bright yet indolent and disagreeable student and peer, whose single-minded devotion to Sanskrit endeared him to one friend in a high place – Regnaud – who is largely responsible for any scholarly success Grosset in fact had. Perhaps, even, it was Regnaud who paved the way for Grosset to receive Lavignac's encyclopedic commission – although this cannot be proved beyond speculation.

In contrast to his *Nāṭyaśāstra*, left unfinished and years overdue, Grosset's chapter for the Albert Lavignac's *Encyclopédie*, 'Inde: Histoire de la musique depuis l'origine jusqu'à nos jours', was completed in a timely manner and submitted in January 1907 – after which point it languished until Lavignac had amassed enough completed consecutive chapters to launch publication of his encyclopedia.[25] Like his *Nāṭyaśāstra*, however, the quality of Grosset's work was widely praised: Grosset was awarded the 'Œillet d'argent' from the Académie des

[20] F-Pan F^{17} 23130, 13; the bright red broadsheet, headlined 'UN SCANDALE', is signed only, 'Lacroix'.
[21] Letter from Émile Jullien to the rector dated 21/i/1894, F-LYad 1T/279; 'L'édition d'un manuscrit sanscrit dont s'est chargé M. Grosset marche très lentement; mais l'auteur est seul responsable d'un retard qui ressemble fort à une interruption.'
[22] Enquiry signed A[lfred] Coville, F-LYad 1T/279.
[23] 'Procès-verbaux du conseil supérieur de l'université de Lyon', entry dated 4/xi/1897, F-LYad 1T/273.
[24] F-LYad 4480W/1.
[25] Grosset writes that the article was drafted in 1906, revised, and sent to the editor in January, 1907 ('Inde', 259n1).

sciences, belles-lettres, et arts de Lyon;[26] and in 1915, the Académie des inscriptions et de belles lettres rewarded him once again, this time with a Prix Extraordinaire Bordin, accompanied by 1,000 francs.[27]

I have found no trace of Grosset's activities in the years following publication of his chapter in the *EMDC*. When Grosset died in 1931, his death certificate listed him as 'sans profession'.[28] He was survived by Antonine, who died in 1952.



UN SCANDALE

UN RÉFRACTAIRE, CANDIDAT AUX ELECTIONS MUNICIPALES

LYON - 6e ARRONDISSEMENT

Nous apprenons avec stupéfaction qu'un des comités les plus influents du 6e arrondissement prend pour candidat aux élections municipales, le Citoyen GROSSET.

Ce choix est des plus malheureux, M. GROSSET ne peut représenter ses concitoyens au Conseil Municipal pour les raisons suivantes. M. GROSSET s'est approprié pendant sept ans le bien des pauvres ; il est de plus réfractaire à la loi du recrutement. Son nom, comme on va le voir, signifie ambition et non pas dévouement, et celui-là qui n'est pas capable de se dévouer à la chose publique, n'est pas digne de la représenter. Quelques mots suffiront pour le démontrer.

En 1881, M. GROSSET demande et obtient, grâce à la bienveillance de ses maîtres, une bourse de licence de l'Etat, près la Faculté des Lettres de Lyon, et le 26 décembre 1882, un peu avant le tirage au sort, il contracte un engagement de dix ans auquel d'ailleurs, comme on verra plus loin, il compte bien se dérober.

De cette obligation onéreuse, il tirera même une somme de revenus.

Après deux années de licence, on lui accorde en 1883 une bourse d'agrégation d'un an, près la même Faculté; on la lui renouvelle l'année suivante (1884).

Ces deux années écoulées, il ne se présente même pas au concours d'agrégation, et, fait sans précédent, il obtient **quand même** une bourse d'études. En 1886, nous le trouvons effectivement, au mépris de tous droits, titulaire de cette bourse qu'il conserve jusqu'en décembre 1888.

Seuls, les jeunes gens pauvres ont droit à une bourse. Or, M. GROSSET, père, n'a que deux enfants, possède le bel immeuble sis à Lyon, rue Cuvier n° 4, et a, en outre, dans le commerce un emploi lucratif. Il donne ainsi à son fils l'exemple du travail. Les fonds du Ministère de l'Instruction Publique ont donc été détournés de leur véritable destination au bénéfice d'une personne déjà par sa naissance privilégiée de la Fortune.

Le montant ordinaire d'une bourse de l'Etat est de 1500 francs. M. GROSSET a donc touché 1500 × 7, soit dix mille cinq cents francs. Cette somme était du superflu pour M. GROSSET, mais ce superflu était le nécessaire des pauvres. Voilà ce qui est blâmable.

Travaille-t-il au moins ? Cherche-t-il à mériter, à justifier les faveurs exceptionnelles que l'Etat lui accorde ? Non. Après sept années d'études à la Faculté, il n'en sort que licencié. Peu lui importe, d'ailleurs; les bourses ne sont autre chose pour lui qu'un moyen de se dérober avec profit à l'obligation d'enseigner, comme son engagement décennal n'était qu'un moyen d'échapper au service militaire.

C'est donc au détriment du Trésor, comme aussi au préjudice des jeunes gens pauvres qui eussent sans doute obtenu de meilleurs résultats, qu'il émarge au budget de l'Etat.

En 1888, il a épuisé toutes les natures de bourse que l'Etat peut donner. Il a cependant encore quatre ans avant d'arriver au terme de l'engagement décennal. Les fonctions de sous-bibliothécaire universitaire lui apparaissent alors comme un refuge contre les fatigues de l'enseignement. Il croit ou plutôt il feint de croire que cet emploi le dispensera. Or cette fonction qui n'a jamais été assimilée à un service d'enseignement, ne dispense pas du service militaire. Mais, M. GROSSET compte sur les influences qu'il a déjà fait agir pour occuper cet emploi qui le condmra à la dernière année de ce redoutable engagement décennal, à moins que d'ici là, il ne trouve encore le moyen de se dérober une troisième fois. Nous allons voir qu'il y réussit.

Le 7 décembre 1888, il est nommé sous-bibliothécaire à la bibliothèque universitaire de Lyon. Mais le 28 octobre 1889, il sollicite et obtient un congé d'un an pour raisons de santé, et ce congé lui est renouvelé d'année en année. Comme on le voit, il est dans l'enseignement, de par son engagement décennal, mais il n'enseigne pas.

Pendant l'année qu'il passe à la Faculté de Droit, il se fait remarquer par sa paresse, son inexactitude et son arrogance. Plaintes nombreuses des Professeurs à son sujet.

Les raisons de santé qu'il invoque pour se faire accorder un congé, ne l'empêchent pas de solliciter un emploi à la grande bibliothèque de la Ville. Par ses intrigues, il réussit à se faire nommer en Decembre 1889, bibliothécaire-adjoint à cette bibliothèque.

Il est bon de remarquer qu'à partir du jour où il quitte les services universitaires pour entrer dans les services municipaux, il devient d'une manière plus manifeste encore réfractaire à la loi militaire ; et il n'est pas douteux que si, ce jour, la Mairie avait été informée de cette situation, elle ne lui eût pas ouvert les portes de la bibliothèque municipale.

Il y a lieu de croire également qu'au bureau de recrutement ainsi qu'au Ministère de la Guerre, on ignorait que M. GROSSET avait quitté les services universitaires, et nous nous plaisons à penser, pour l'honneur de l'Université, que ses amis et protecteurs n'avaient pas supposé qu'en faisant entrer M. GROSSET dans un Service municipal, ils se faisaient involontairement complices de la violation flagrante de la loi militaire qui oblige tous les citoyens au nom de l'égalité.

D'un autre côté, nous sommes persuadés quesi ses collègues de l'Union patriotique (*O ironie des choses !*) avaient été informés de cette situation, ils n'auraient pas manqué de l'inviter à remplir ses devoirs civiques, comme il convient à tout membre d'une association patriotique.

Les professeurs de la Faculté de Droit, ne craignirent pas, au moment du départ de M. GROSSET de la Faculté, de formuler à son sujet l'appréciation suivante : « Nous sommes désolés qu'il entre à la grande Bibliothèque de la Ville, mais nous sommes enchantés d'en être débarrassés. » (*sic*).

A peine est-il installé dans ce nouveau poste qu'il donne l'exemple de l'insubordination la plus complète. Il refuse de recevoir des ordres de l'administration municipale qui l'a nommé, Il se croit le maître; il se conduit de la plus odieuse façon avec son supérieur hiérarchique M. Vingtrinier dont l'âge et les fonctions devaient cependant lui imposer le respect. Il l'outrage et le ridiculise et va même jusqu'à décacheter ses lettres. Il fait preuve de l'incapacité la plus notoire ; il bouleverse la bibliothèque de fond en comble et la désorganise complètement. Sous prétexte de refaire le catalogue, il gaspille en un an près de 15·000 fr. à la Ville sans autre résultat que d'ajouter une confusion de plus à celles déjà existantes. Il chasse le public de la Bibliothèque qui n'est ouverte que pour ses amis. Il interdit le prêt à domicile, sauf cependant pour ses protégés. Il modifie les arrêtés, les règlements Il touche à tout, désorganise tout ; sa suffisance n'a d'égale que son insuffisance.

Il abandonne son poste pour aller aux fêtes de Montpellier. Il y emmène sa maîtresse qu'il présente comme une étudiante aux hauts fonctionnaires venus de Paris et de Province pour assister à ces fêtes. M. Bayet, alors doyen de la Faculté des Lettres, est indigné de cette conduite qui est signalée au Ministère, et un Inspecteur des Bibliothèques se rend immédiatement à Lyon pour demander sa révocation. Toutefois, grâce à des influences qui ne se lassent pas (si grande est la bonté du cœur humain !) l'affaire s'arrange.

Il quitte encore une fois son poste sans autorisation pour se rendre à Anvers. Le [illegible] reçoit une lettre de blâme des plus sévères. Le Maire le menace [illegible] tour de révocation.

Enfin son audace n'a plus de bornes. Il devient de plus en plus violent avec le public et va même jusqu'à menacer de souffleter un lecteur.

L'administration perd enfin patience et, après une minutieuse enquête, l'informe que s'il ne donne pas sa démission, il sera immédiatement révoqué. Il quitte la bibliothèque au mois d'Août 1891.

Le 21 novembre de la même année un nouveau congé d'inactivité pour raisons de santé est accordé à M. GROSSET qui est suppléé par M. Nicaud dans les fonctions de bibliothécaire à la Faculté de Droit, fonctions qui lui sont rendues toujours en vertu de la même bienveillance dont ses maîtres le comblent ! !

M. GROSSET qui veut prendre sur ses épaules le lourd fardeau des affaires de la ville est donc actuellement, de par son congé, malade. S'il est malade, le repos est choisi indiquée pour lui, et comme les fonctions de conseiller municipal exigent une grande assiduité et une forte dose de travail, il est physiquement incapable de les remplir.

Au contraire, si M. GROSSET n'est pas malade, il est plus que jamais réfractaire à la loi militaire qui oblige tous les citoyens, car, ainsi que cela a été dit plus haut, les fonctions de sous-bibliothécaire dans l'Université ne dispensent pas du service militaire.

Pour expliquer son départ de la bibliothèque de la ville, M. GROSSET allègue que sa dignité a été offensée par la nomination d'un administrateur à la bibliothèque. Cependant, à l'encontre de l'allégation de M. GROSSET, il est constant que cette nomination a été jugée absolument nécessaire par la Commission des bibliothèques, par l'Inspecteur Général, délegué du ministère et enfin par l'Administration municipale, pour remettre l'ordre dans cet établissement bouleversé par M. GROSSET.

D'autre part, M. GROSSET a surpris la bonne foi des électeurs du 6e arrondissement en affirmant qu'il est en règle avec l'autorité militaire par suite d'un examen qu'il a passé [illegible] l'**Aérostation**. L'examen dont il s'agit n'a pas été subi devant une commission compétente au point de vue militaire ; d'ailleurs, nous mettons M. GROSSET au défi de produire une pièce militaire authentique constatant qu'il a, comme les enfants du peuple, payé sa dette à la Patrie.

M. GROSSET qui a toutes les audaces, a osé comparer la situation irrégulière dans laquelle il se trouve à celle si franche et si nette de M. Burdeau. Personne n'ignore la ville conduite de M. Burdeau au moment de l'invasion en 1870-71, et tout le monde sait qu'après la guerre M. Burdeau a déposé les armes pour revêtir la toge de Professeur qu'il a gardée jusqu'au moment où (1885) la confiance des électeurs l'a appelé à la députation du Rhône.

Après cet exposé, on aura, croyons-nous, une idée suffisante de la valeur morale de M. GROSSET, des mérites et des états de service qui le recommandent aux suffrages [illegible] électeurs.

LACROIX.

Lyon — Imprimerie BO[illegible]ARD, rue Terme 10

Figure B.1: A bulletin attacking Joanny Grosset on every conceivable grounds during the Lyonnais municipal elections, 1898
(*Photographed by the author, F-Pan, F[17] 23130*)

[26] My thanks to Pierre Crépel of the Académie de Lyon for his warm welcome, and for providing me with information about this award.
[27] *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 59/6 (1915), 422.
[28] F-LYam, 2E2250 [registre de décès, Lyon (2e arrondissement), 1930–31], 61.

APPENDIX C

The 120 *deśītāla*s, between Śārṅgadeva and Grosset

The *Saṅgītaratnākara* ('Ocean of Music') was composed in the thirteenth century by Śārṅgadeva, an accountant at the court of Siṅghaṇadeva II in Devagiri, Maharashtra, the capital of the Yadava dynasty. The work, encyclopedic in scope, has been called 'a watershed in South Asian music history', and 'perhaps the most important and influential of all treatises in the history of Indian music'.[1] It consolidates previous Indian musical scholarship and provided a template for future treatises in its seven-chapter plan, roughly encompassing physiology, mode (*rāga*), performance practice, song forms, metre (*tāla*), organology, and dance.[2] It is in the course of the fifth *adhyāya* (chapter), on *tāla*, that Śārṅgadeva draws up his list of 120 *deśītāla*s.

It is impossible, on the basis of manuscripts of the *Saṅgītaratnākara*, to surmise today what these *deśītāla*s were in the context of thirteenth-century Indian musical culture. However, despite the contextual and musical uncertainties, Joanny Grosset saw fit to provide a table, over three-and-a-half pages long, of all 120 *deśītāla*s listed by Śārṅgadeva, translated and transcribed into Western notation.[3] In spite of the opacity of the source text, it is instructive to see how Grosset's mediation reshaped Śārṅgadeva's text for the early twentieth-century French audience. I have therefore retraced this translation process for an extract of four *śloka* verses, which overlap imperfectly with the definitions of eight *deśītāla*s – caturasra, siṃhivikrīḍita, jayaḥ, vanamālī, haṃsanāda, siṃhanāda, kuḍukka, and turaṅgalīla – numbered 26–33 in Grosset's table. This step-by-step translation process includes:

- the Sanskrit text in the *devanāgarī* abugida, copied from the 1896–97 Indian edition of the *Saṅgītaratnākara* cited by Grosset (see also, Fig. C.1);[4]
- the transliteration of the Sanskrit text in the Roman alphabet;
- the metrical scansion of the verses, showing aspects of their rhythmic pattern;
- a word-by-word interlinear translation from Sanskrit to English;
- a glossary explaining the jargon and shorthand in the above translation;
- an unmetred prose translation from Sanskrit to English, maintaining some of the shorthand of the Sanskrit text.

It does not include the commentary (e.g., of Kallinātha) which was published with the Sanskrit edition.

Finally, at the end of this Appendix, Grosset's table is reproduced. Grosset numbers the *deśītāla*s, presenting each one as a sequence of durational units, using both an Indian notational system, alongside western noteheads between the semiquaver and the dotted crotchet. For each, he provides the Sanskrit name, and the number of *mātra*s (another measure of duration explained in *Saṅgītaratnākara* but not provided for each *deśītāla*).

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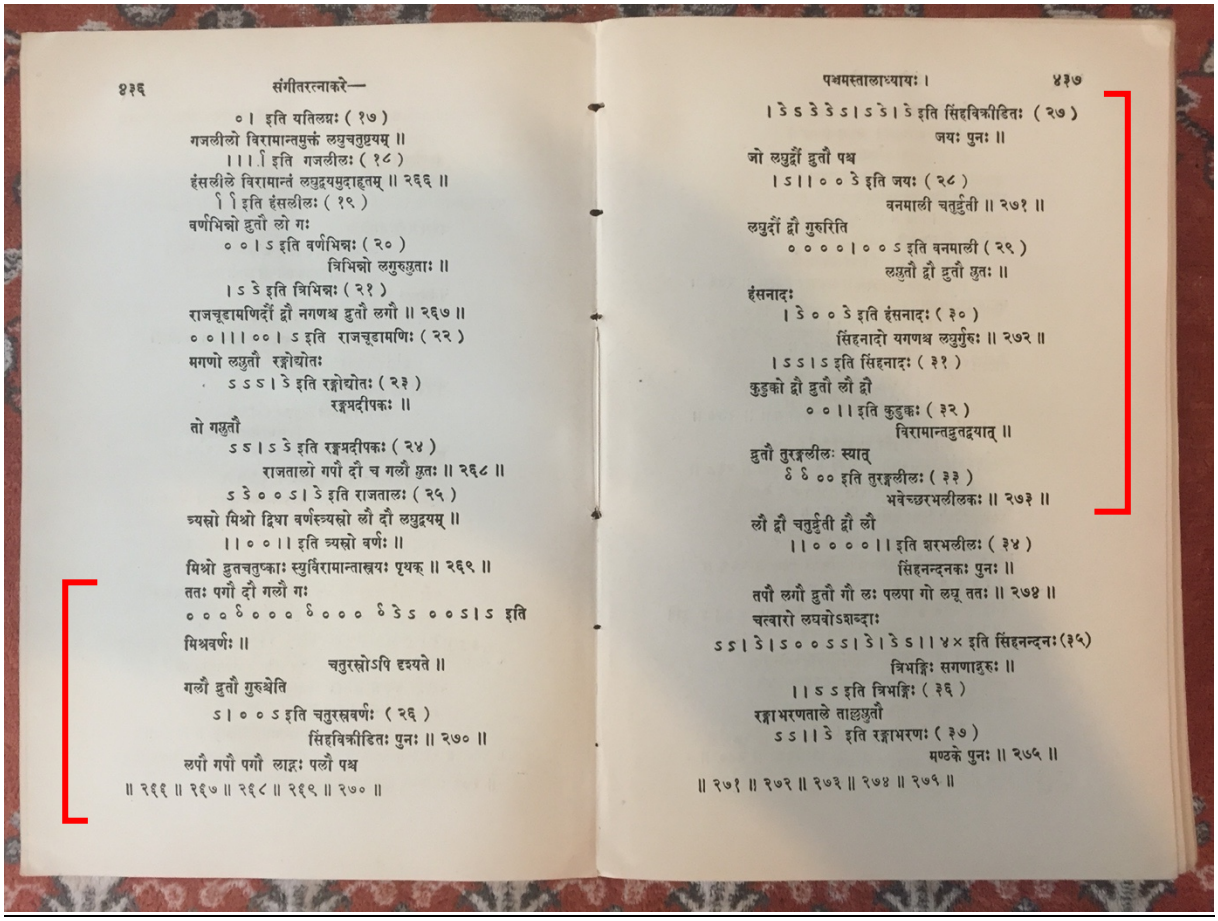
[1] Harold S. Powers and Jonathan Katz, 'History of Classical Music', in 'India, subcontinent of'; and Katz, 'Śārṅgadeva'; *Grove Music Online*.
[2] For a recent detailed introduction to the text, see Widdess, *The Rāgas of Early Indian Music*, 161–3; and Jonathan Katz, 'Śārṅgadeva', *Grove Music Online*.
[3] Grosset, 'Inde', 301–4.
[4] Śārṅgadeva, *Saṅgītaratnākara*, I, 436–7.



४३६ संगीतरत्नाकरे—

० । इति यतिलग्नः (१७)
गजलीलो विरामान्तमुक्तं लघुचतुष्टयम् ॥
। । । । इति गजलीलः (१८)
हंसलीले विरामान्तं लघुद्वयमुदाहृतम् ॥ २६६ ॥
। । इति हंसलीलः (१९)
वर्णभिन्नो द्रुतौ लो गः
० ० । ऽ इति वर्णभिन्नः (२०)
त्रिभिन्नो लगुरुप्लुताः ॥
। ऽ ऽ इति त्रिभिन्नः (२१)
राजचूडामणिर्दौ द्वौ नगणश्च द्रुतौ लगौ ॥ २६७ ॥
० ०।।।०० । ऽ इति राजचूडामणिः (२२)
मगणो लघुतौ रङ्गोद्योतः
ऽ ऽ ऽ । ऽ इति रङ्गोद्योतः (२३)
रङ्गप्रदीपकः ॥
तो गप्लुतौ
ऽ ऽ । ऽ ऽ इति रङ्गप्रदीपकः (२४)
राजताली गपौ दौ च गलौ प्लुतः ॥ २६८ ॥
ऽ ऽ ० ० ऽ । ऽ इति राजतालः (२५)
त्र्यस्रो मिश्रो द्विधा वर्णस्त्र्यस्रो लौ दौ लघुद्वयम् ॥
।।००।। इति त्र्यस्रो वर्णः ॥
मिश्रो द्रुतचतुष्काः स्युर्विरामान्तास्त्रयः पृथक् ॥ २६९ ॥
ततः पगौ दौ गलौ गः
० ० ० ऽ ० ० ० ऽ ० ० ० ऽ ऽ ऽ ० ० ऽ । ऽ इति
मिश्रवर्णः ॥
चतुरस्रोऽपि दृश्यते ॥
गलौ द्रुतौ गुरुश्चेति
ऽ । ० ० ऽ इति चतुरस्रवर्णः (२६)
सिंहविक्रीडितः पुनः ॥ २७० ॥
लपौ गपौ पगौ लाद्गः पलौ पश्च
॥ २६६ ॥ २६७ ॥ २६८ ॥ २६९ ॥ २७० ॥

पञ्चमस्तालाध्यायः । ४३७

। ऽ ऽ ऽ ऽ । ऽ ऽ । ऽ इति सिंहविक्रीडितः (२७)
जयः पुनः ॥
जो लघुर्द्वौ द्रुतौ पश्च
। ऽ । । ० ० ऽ इति जयः (२८)
वनमाली चतुर्द्रुती ॥ २७१ ॥
लघुर्दौ द्वौ गुरुरिति
० ० ० ० । ० ० ऽ इति वनमाली (२९)
लप्लुतौ द्वौ द्रुतौ प्लुतः ॥
हंसनादः
। ऽ ० ० ऽ इति हंसनादः (३०)
सिंहनादो यगणश्च लघुर्गुरुः ॥ २७२ ॥
। ऽ ऽ । ऽ इति सिंहनादः (३१)
कुडुक्को द्वौ द्रुतौ लौ द्वौ
० ० । । इति कुडुक्कः (३२)
विरामान्तद्रुतद्वयात् ॥
द्रुतौ तुरङ्गलीलः स्यात्
ऽ ऽ ०० इति तुरङ्गलीलः (३३)
भवेच्छरभलीलकः ॥ २७३ ॥
लौ द्वौ चतुर्द्रुती द्वौ लौ
।।००००।। इति शरभलीलः (३४)
सिंहनन्दनकः पुनः ॥
तपौ लगौ द्रुतौ गौ लः पलपा गो लघू ततः ॥ २७४ ॥
चत्वारो लघवोऽशब्दाः
ऽ ऽ । ऽ । ऽ ० ० ऽ ऽ । ऽ । ऽ ऽ । । ४× इति सिंहनन्दनः (३५)
त्रिभङ्गिः सगणाद्गुरुः ॥
।। ऽ ऽ इति त्रिभङ्गिः (३६)
रङ्गाभरणताले ताल्लघुतौ
ऽ ऽ । । ऽ इति रङ्गाभरणः (३७)
मण्डके पुनः ॥ २७५ ॥
॥ २७१ ॥ २७२ ॥ २७३ ॥ २७४ ॥ २७५ ॥

Figure C.1: From Chapter 5 of the *Saṅgītaratnākara* of Śārṅgadeva, 1896 edition with commentary by Kallinātha as consulted by Joanny Grosset (I, 436–7). Note the rhythmic notation of each *deśītāla* interspersed among the verses, recopied by Grosset (and later Messiaen). Extract translated below indicated by brackets.
(*Photographed by the author, Ancient India and Iran Trust Library, Cambridge, A5D 7*)

Sanskrit (devanāgarī):

ततः पगौ दौ गलौ गः चतुरस्रो ऽपि दृश्यते ।
गलौ द्रुतौ गुरुश्चेति सिंहविक्रीडितः पुनः ॥ २७० ॥
लपौ गपौ पगौ लाद्गः पलौ पश्च जयः पुनः ।
जो लघुर्द्वौ द्रुतौ पश्च वनमाली चतुर्द्रुती ॥ २७१ ॥
लघुर्दौ द्वौ गुरुरिति लप्लुतौ द्वौ द्रुतौ प्लुतः ।
हंसनादः सिंहनादो यगणश्च लघुर्गुरुः ॥ २७२ ॥
कुडुक्को द्वौ द्रुतौ लौ द्वौ विरामान्तद्रुतद्वयात् ।
द्रुतौ तुरङ्गलीलः स्यात् भवेच्छरभलीलकः ॥ २७३ ॥

Sanskrit (transliteration):

tataḥ pagau dau galau gaḥ caturasro 'pi dṛśyate
galau drutau guruśceti siṃhavikrīḍitaḥ punaḥ || 270 ||
lapau gapau pagau lādgaḥ palau paśca jayaḥ punaḥ
jo laghurdvau drutau paśca vanamālī caturdrutī || 271 ||
laghurdau dvau gururiti laplutau dvau drutau plutaḥ
haṃsanādaḥ siṃhanādo yagaṇaśca laghurguruḥ || 272 ||
kuḍukko dvau drutau lau dvau virāmāntadrutadvayāt
drutau turaṅgalīlaḥ syāt bhaveccharabhalīlakaḥ || 273 ||

Metrical scansion (śloka*s*):

Each śloka *(two lines) is divided into four* pāda*s, and further into two 'feet'. Syllables are either short (∪) or long (–), depending on their vowels and whether they are followed by consonant clusters. The most consistent rhythmic feature is the ending of each second* pāda *in* [∪ – ∪ –]*, although other metrical resonances may also be observed coming and going.*

∪ – ∪ –	– ∪ – –	∪ ∪ – –	∪ – ∪ –	
∪ – ∪ –	∪ – – ∪	– ∪ – –	∪ – ∪ –	(270)
∪ – ∪ –	∪ – – –	∪ – – ∪	∪ – ∪ –	
– ∪ – –	∪ – – ∪	∪ ∪ – –	∪ – ∪ –	(271)
∪ – – –	∪ ∪ ∪ ∪	– ∪ – –	∪ – ∪ –	
– ∪ – –	– ∪ – –	∪ ∪ – ∪	∪ – ∪ –	(272)
∪ – – –	∪ – – –	∪ – – –	∪ – ∪ –	
∪ – ∪ –	∪ – – –	∪ – ∪ ∪	∪ – ∪ –	(273)

Interlinear translation:

Words highlighted in grey represent incomplete descriptions of deśītāla*s which enjamb into surrounding* śloka*s, not translated here. Key to abbreviations used: a.=adjective; abl.=ablative; adv.=adverb; comp.=compound; d.=dual; n.=noun; nom.=nominative; opt.=optative; p.v.=passive voice; part.=particle; prop.=proper [i.e., the name of a* deśītāla*]; pred.=predicate; s.=singular; subj.=subject; v=verb.*

tataḥ (adv., 'therefore')
pagau [=pa-gau] (comp.n.d., nom. pred., 'triple-and-heavy')
dau (n.d., nom. pred., abbrev. [druta], '[two] quicks')
galau [=ga-lau] (comp.n.d., nom. pred., 'heavy-and-light')
gaḥ (n.s., nom. pred., 'a heavy')

caturasro [caturasraḥ] (prop.n.s., nom. Subj., 'Caturasra'
'pi (part., 'even', 'also')
dṛśyate (v., 3rd.s., pres., p.v., √ दृश् 'to see')

galau [=ga-lau] (comp.n.d., nom. subj., ‘heavy-and-light’)
drutau (n.d., nom. pred., ‘[two] quicks’)
guruś [=guruḥ] (n.s., nom. pred., ‘heavy’)
ca (part., ‘and’)
iti (part., ‘thus’)

siṃhavikrīḍitaḥ (prop.n.s., nom. subj., ‘Siṃhavikrīḍita’)
punaḥ (adv., ‘plus, furthermore’)
lapau [=la-pau] (comp.n.d., nom. pred., ‘light-and-triple’)
gapau [=ga-pau] (comp.n.d., nom. pred., ‘heavy-and-triple’)
pagau [=pa-gau] (comp.n.d., nom. pred., ‘triple-and-heavy’)
lād (n.s., abl., ‘after a light’)
gaḥ (n.s., nom. pred., ‘a heavy’)
palau [=pa-lau] (comp.n.d., nom. pred., ‘triple-and-light’)
paś [=paḥ] (n.s., nom. pred., ‘a triple’)
ca (part., ‘and’)

jayaḥ (prop.n.s., nom. subj., ‘Jayaḥ’)
punaḥ (adv., ‘plus, furthermore’)
jo [=jaḥ] (n.s., nom. pred., ‘group J’ [predefined sequence ‘light–heavy–light’]
laghur [=laghuḥ] (n.s., nom, pred., ‘light’);
dvau (a.d., ‘two’)
drutau (n.d., nom. pred., ‘[two] quicks’)
paś [=paḥ] (n.s., nom. pred., ‘a triple’)
ca (part., ‘and’)

vanamālī (prop.n.s., nom. subj., ‘Vanamālī’)
caturdrutī [=catur-drutī] (comp.n.s., nom. subj., ‘four-quicks’)
laghur [=laghuḥ] (n.s., nom, pred., ‘light’);
dau (n.d., nom. pred., abbrev. [druta], ‘[two] quicks’)
dvau (a.d., ‘two’)
gurur [=guruḥ] (n.s., nom, pred., ‘heavy’)
iti (part., ‘thus’)

laplutau [=la-plutau] (comp.n.d., nom. pred., ‘light-and-triple’)
dvau (a.d., ‘two’)
drutau (n.d., nom. pred., ‘[two] quicks’)
plutaḥ (n.s., nom. pred., ‘triple’)
haṃsanādaḥ (prop.n.s., nom. subj., ‘Haṃsanāda’)

siṃhanādo [=siṃhanādaḥ] (prop.n.s., nom. subj., ‘Siṃhanāda’)
yagaṇaś [=ya-gaṇaḥ] (n.s., nom. pred., ‘Group Y’ [predefined sequence ‘light–heavy–heavy’])
ca (part., ‘and’)
laghur [=laghuḥ] (n.s., nom, pred., ‘light’)
guruḥ (n.s., nom, pred., ‘heavy’)

kuḍukko [=kuḍukkaḥ] (prop.n.s., nom. subj., ‘Kuḍukka’)
dvau (a.d., ‘two’)
drutau (n.d., nom. pred., ‘[two] quicks’)

lau (n.d., nom. pred., abbrev. [laghu], '[two] lights')
dvau (a.d., 'two')

virāmāntadrutadvayāt [=virāma-anta-druta-dvayāt] (comp.n.s., abl., 'a pair of quicks ending with pauses')
drutau (n.d., nom. pred, 'quicks')
turaṅgalīlaḥ (prop.n.s., nom. subj., 'Turaṅgalīla')
syāt (v., 3rd.s., opt., √ अस् 'to be', 'to exist')

bhavec [=bhavet] (v., 3rd.s., opt., √ भू 'to be', 'to become')
charabhalīlakaḥ [=śarabhalīla-kaḥ] (prop.n.s. + suffix 'ka', nom. subj., 'that which is to do with Śharabhalīla')

...

Glossary of Terms:

Druta: 'quick', the shortest durational unit, representing half a *laghu*; sometimes abbreviated to 'da'.
Gaṇa: 'group', refers to a convention from prosody, in which three-syllable sequences of *laghu* and *guru* syllables are predefined as a *gaṇa*, assigned a letter, and referred to later in shorthand. For example, *ya[-gaṇa]*, or '[Group] Y', denotes the sequence *laghu-guru-guru*; *sa[-gaṇa]*, or '[Group] S', denotes the sequence *laghu-laghu-guru*. There are eight such *gaṇa*s, representing each of the possible combinatorial sequences of three syllables.
Guru: 'heavy', durational unit representing two *laghu*s (also used in prosody for 'long' syllables); sometimes abbreviated to 'ga'.
Laghu: 'light', the basic durational unit (also used in prosody for 'short' syllables); sometimes abbreviated to 'la'.
Pluta: 'triple' or 'lengthened', durational unit representing three *laghu*s; sometimes abbreviated to 'pa'.
Virama: 'pause', the addition of a half-unit of value to any of the individual durational values.

Unmetred translation with shorthand:

(270) …then a triple-and-heavy, two quicks, a heavy-and-light, and a heavy. Caturasra appears thus: heavy-and-light, two quicks, and a heavy. Furthermore, Siṃhavikrīḍitaḥ…

(271) …is a light-and-triple, heavy-and-triple, triple-and-heavy, a heavy after a light, a triple-and-light, and a triple. Furthermore, Jayaḥ is a 'Group J', a light, two quicks, and a triple. Vanamālī is four quicks…

(272) …a light, and two Q's. An L, a triple, two quicks, and a triple is Haṃsanādaḥ. Siṃhanāda is 'Group Y', a light, and a heavy.

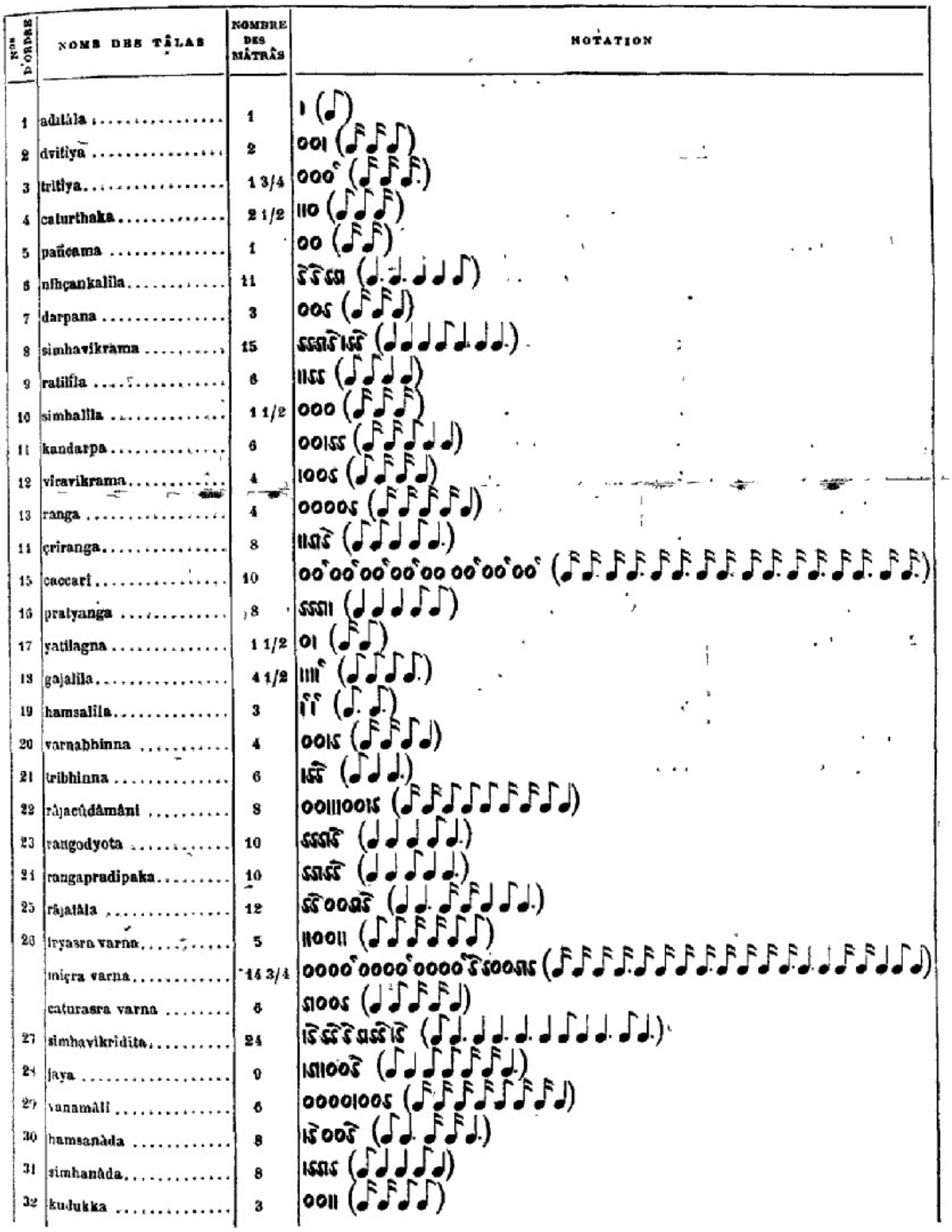
(273) Kuḍukka is two quicks, two L's. Turaṅgalīla is a pair of quicks ending with pauses, and two quicks. As for Śarabhalīla…

Joanny Grosset's 'Tableau des 120 Decî-tâlas':

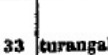
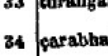
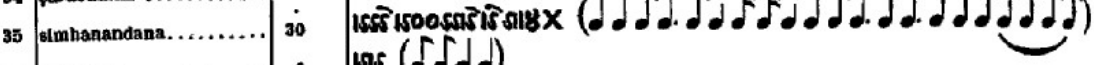
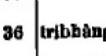
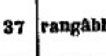
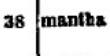
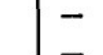
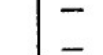
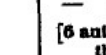
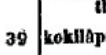
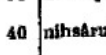
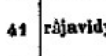
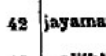
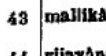
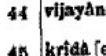
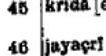
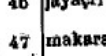
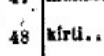
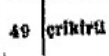
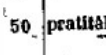
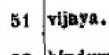
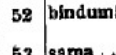
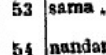
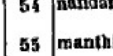
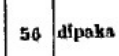
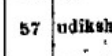
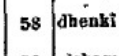
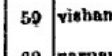
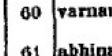
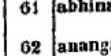
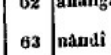
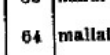
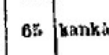
The deśītāla*s explained above are numbered 27–34 on Grosset's table.*

TABLEAU DES 120 DECÎ-TÂLAS

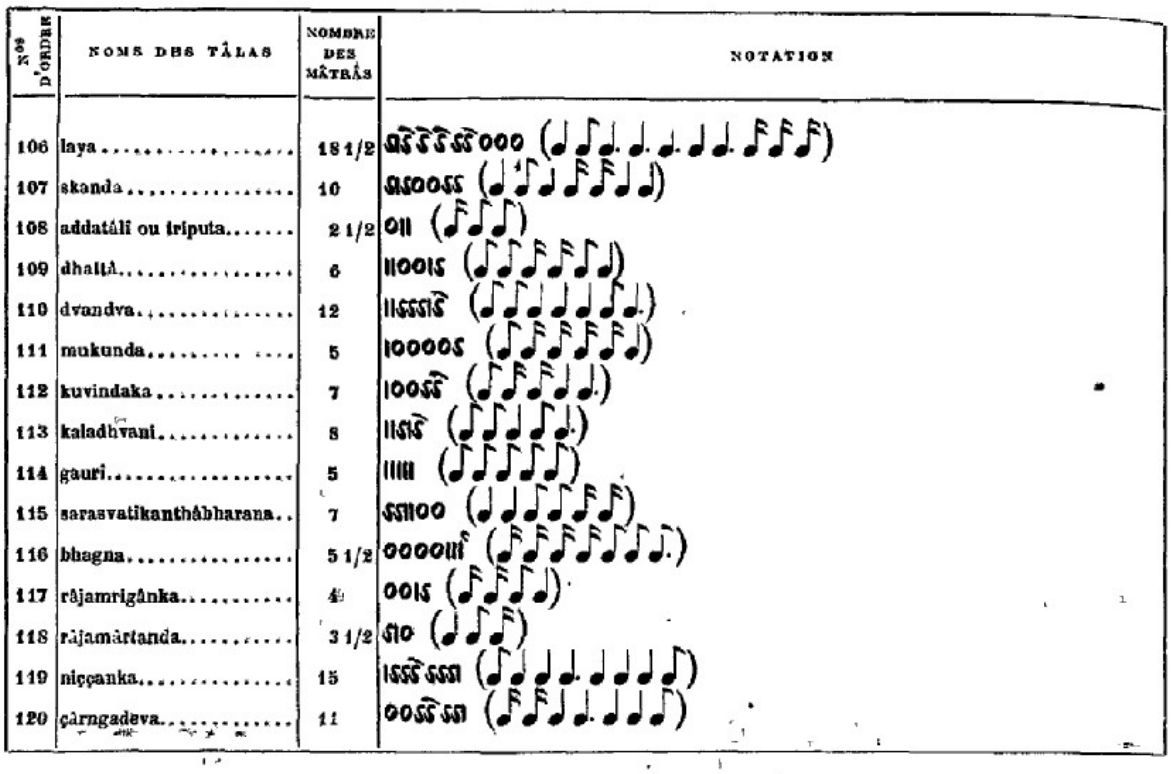
D'APRÈS LE SYSTEME DE ÇÂRNGADEVA



Nos D'ORDRE	NOMS DES TÂLAS	NOMBRE DES MÂTRÂS	NOTATION
1	adiṭâla	1	I
2	dvitîya	2	OI
3	tritîya	1 3/4	OO°
4	caturthaka	2 1/2	IIO
5	pañcama	1	OO
6	nihçankalîla	11	S S SI
7	darpana	3	OOS
8	simhavikrama	15	SSSS ISS
9	ratilîla	6	IISS
10	simhalîla	1 1/2	OOO
11	kandarpa	6	OOISS
12	viravikrama	4	IOOS
13	ranga	4	OOOOS
14	çriranga	8	IISIS
15	caccarî	10	OO°OO°OO°OO°OO OO°OO°OO°
16	pratyanga	8	SSSI
17	yatilagna	1 1/2	OI
18	gajalîla	4 1/2	IIII°
19	hamsalîla	3	I I°
20	varnabhinna	4	OOIS
21	tribhinna	6	ISS
22	râjacûdâmâni	8	OOIIIOOIS
23	rangodyota	10	SSSIS
24	rangapradipaka	10	SSISS
25	râjalîla	12	SS OOSIS
26	tryasra varna	5	IIOOII
	miçra varna	14 3/4	OOOO°OOOO°OOOO°S SOOSIS
	caturasra varna	6	SIOOS
27	simhavikrîdita	24	IS S S SISS IS
28	jaya	9	ISIIOOS
29	vanamâli	6	OOOOIOOS
30	hamsanâda	8	IS OOS
31	simhanâda	8	ISSIS
32	kudukka	3	OOII

Nos D'ORDRE	NOMS DES TÂLAS	NOMBRE DES MÂTRÂS	NOTATION
33	turangalîla	2 1/2	
34	çarabhalîla	6	
35	simhanandana	30	
36	tribhângi	6	
37	rangâbharana	9	
38	mantha (1°)	8	
	— (2°)	8	
	— mudrita (3°)	8	
	— (4°)	8	
	[6 autres formes de mantha, en tout 10.]		
39	kokilâpriya	6	
40	nihsâruka	3	
41	râjavidyâdhara	4	
42	jayamangala	8	
43	mallikâmoda	4	
44	vijayânanda	8	
45	krîdâ [et] candanihsâruka.	1 1/2	
46	jayaçrî	8	
47	makaranda	4	
48	kîrti	10	
49	çrîkîrti	6	
50	pratîtâla	2	
51	vijaya	8	
52	bindumâli	6	
53	sama	3 1/2	
54	nandana	5	
55	manthikâ	5 1/2	
	— [ou]	1 1/4	
56	dîpaka	7	
57	udîkshana	4	
58	dhenkî	5	
59	vishama	4 1/2	
60	varnamanthikâ	5	
61	abhinanda	5	
62	ananga	8	
63	nândî	8	
64	mallatâla	5 1/4	
65	kankâla (1°) pûrna	5	
	— (2°) khanda	5	
	— (3°) sama	5	
	— (4°) vishama	5	

Nos D'ORDRE	NOMS DES TÂLAS	NOMBRE DES MÂTRAS	NOTATION
66	kanduka	6	
67	ekatâlî	1/2	
68	kumuda	6	
	— [ou]	5	
69	catustâla	3 1/2	
70	dombuli	3	
71	abhanga	4	
72	râyavankola	6	
73	vasanta	9	
74	laghuçekhara	1 1/2	
75	pratâpaçekhara	4 1/4	
76	jhampâ	2 1/2	
77	gajajhampa	3 3/4	
78	caturmukha	7	
79	madana	3	
80	pratimanthaka ou kollaka	8	
81	pârvatîlocana	13	
82	rati	3	
83	lîlâ	4 1/2	
84	karanayati	2	
85	lalita	4	
86	gârugi	2 1/4	
87	râjanârâyana	7	
88	lakshmîça	4 1/4	
89	lalitapriya	7	
90	çrînandana	7	
91	janaka	14	
92	vardhana	5	
93	râgavardhana	4 3/4	
94	shatîla	3	
95	antarakrîdâ	1 3/4	
96	hamsa	2 1/2	
97	utsava	4	
98	vilokita	6	
99	gaja	4	
100	varnayati	3	
101	simha	4 1/2	
102	karuna	2	
103	sârasa	4 1/2	
104	candatâla	3 1/2	
105	candrakalâ	16	

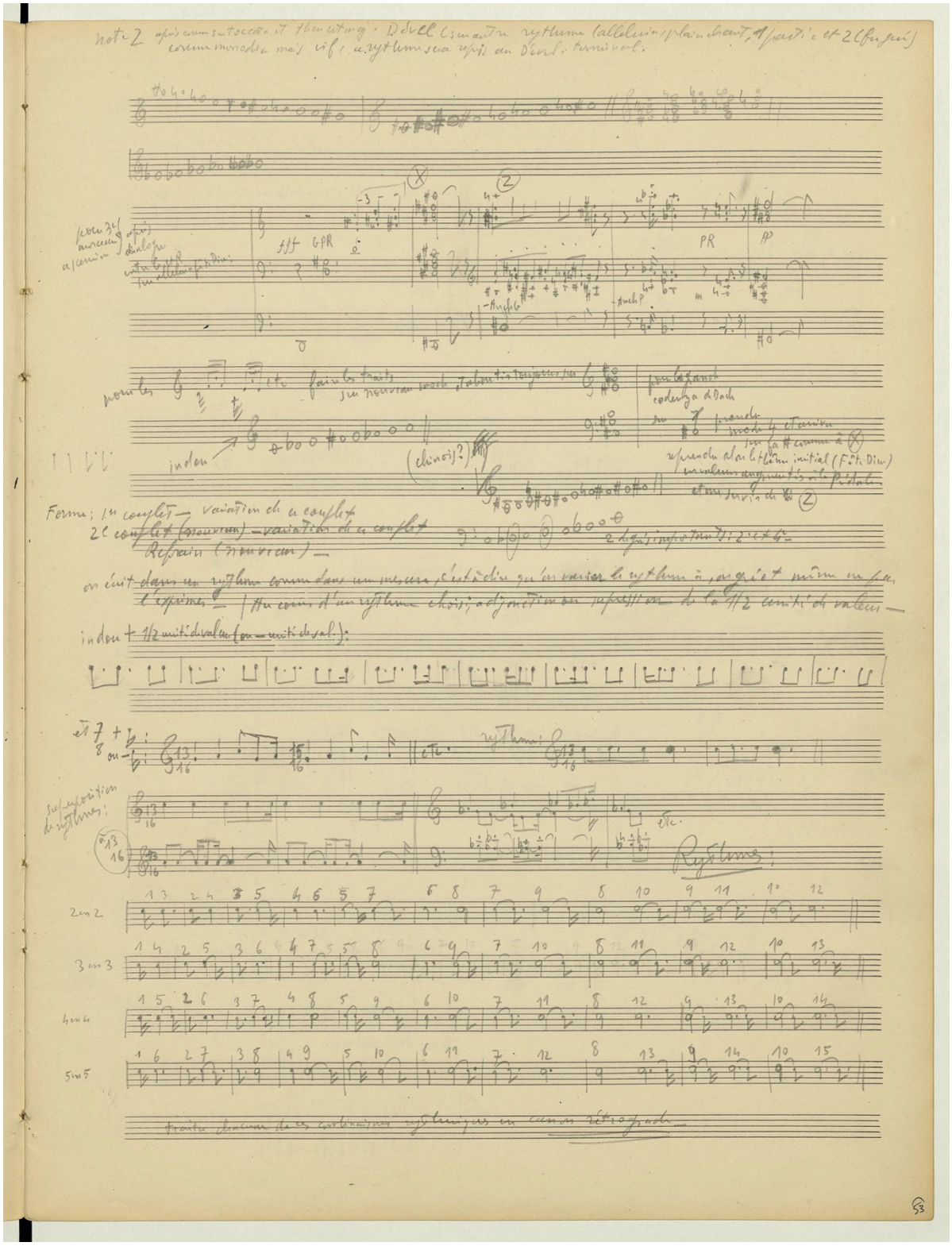


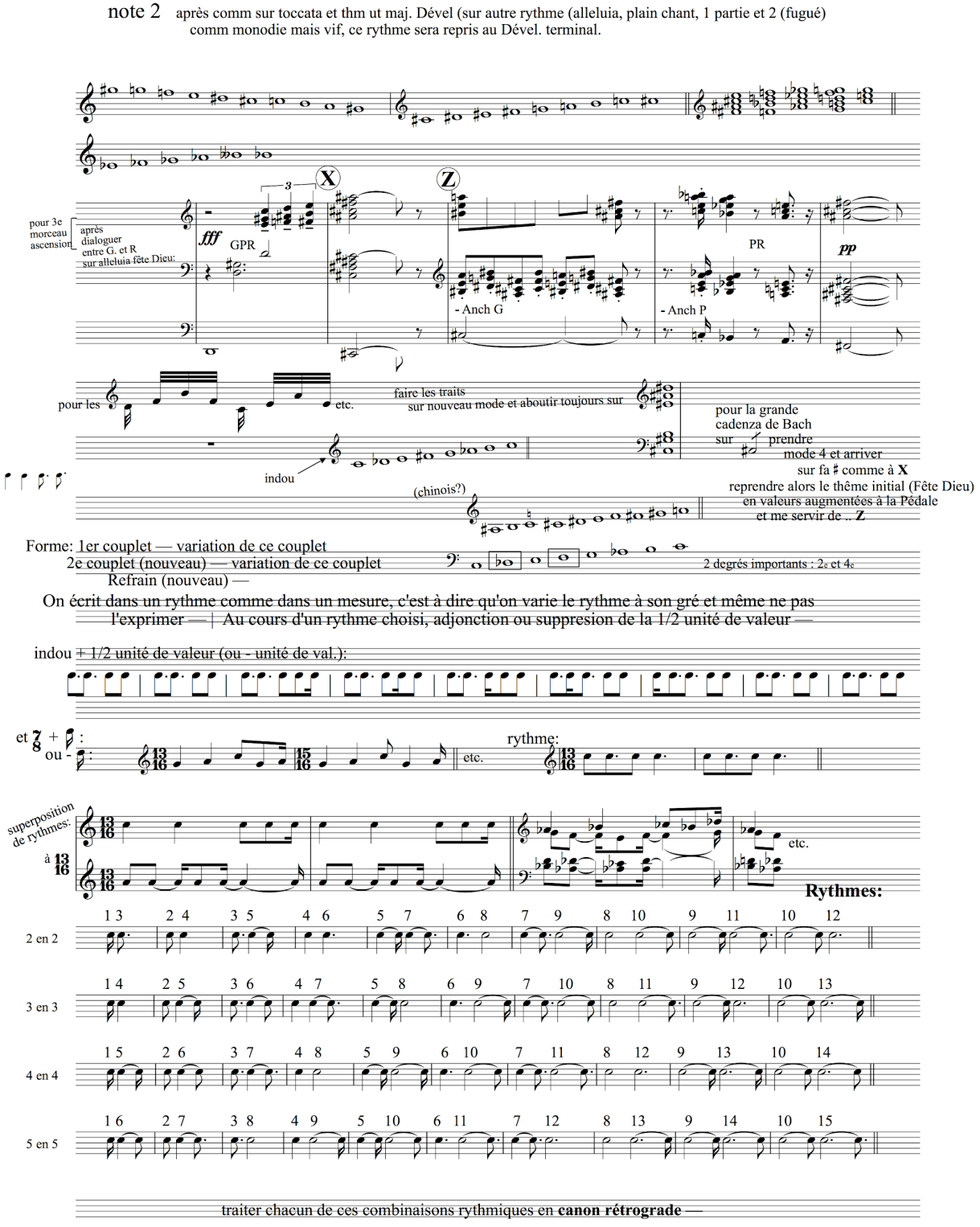
Nos D'ORDRE	NOMS DES TÂLAS	NOMBRE DES MÂTRÂS	NOTATION
106	laya	18 1/2	
107	skanda	10	
108	addatâli ou triputa	2 1/2	
109	dhalîâ	6	
110	dvandva	12	
111	mukunda	5	
112	kuvindaka	7	
113	kaladhvani	8	
114	gauri	5	
115	sarasvatikanthâbharana	7	
116	bhagna	5 1/2	
117	râjamrigânka	4	
118	râjamârtanda	3 1/2	
119	niçcanka	15	
120	çârngadeva	11	

Figures C.2*a–d*: The 120 *deśītāla*s, reproduced by Joanny Grosset in the *EMDC*, I, 301–4.

APPENDIX D

Messiaen sketch materials, detail of selected pages





Figures D.1*a–b*: Scan and transcription of Messiaen's early experimentation with the de*śītāla*s (F-Pn, fonds Messiaen, RES VMA Ms. 1491).

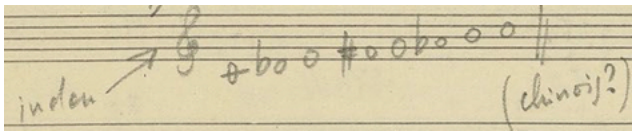
1. ‘Cahier Vert’ [F-Pn, fonds Messiaen, RES VMA Ms. 1491], page 53.

Date: ca. 1933–34 [except for (i)]

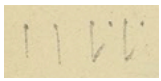
Context: Page contains draft materials for ‘Transports de joie d'une âme devant la gloire du Christ qui est la sienne’, 3rd movement from *L’Ascension* (organ) (1933–34). Surrounding pages also include sketches for *La Nativité du Seigneur*.

Description of Relevant Contents:

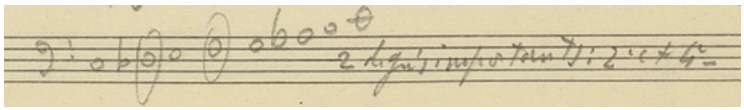
a. 7th stave:
Mode [*Kâmavârdini*] labeled ‘indou’;
Label ‘Chinois?’, with crossed-out arrow



b. Left margin between 7th and 8th staves:
Deśītāla [*sama*, with values doubled] unlabeled, faint



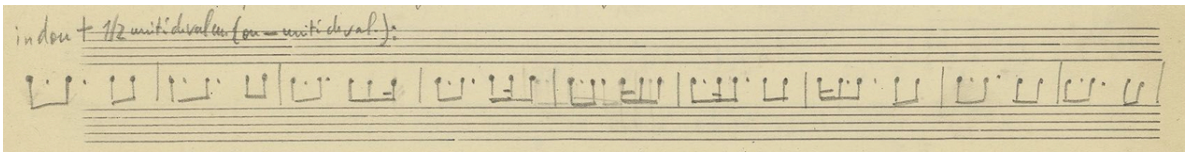
c. 9th stave:
Mode [*Mâyamâlavagaula*, but more likely corresponding to the ‘gamme hindoue’ proposed by C. R. Day, transcribed in Grosset, ‘Inde’, 293n3];
2nd and 4th scale degrees circled, designated ‘degrés importants’



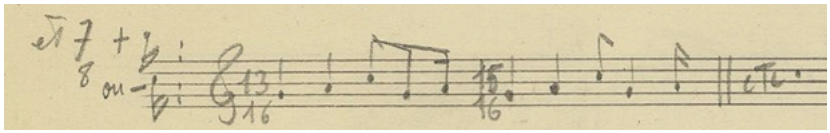
d. 10th stave:
‘on écrit dans un rythme comme dans une mesure, c’est-à-dire qu’on varie le rythme à son gré et même ne pas l’exprimer – | Au cours d’un rythme choisi, adjonction ou suppression de la ½ unité de valeur –’[1]

[1] ‘One writes in a rhythm as in a bar, that is, one varies the rhythm as one wishes, even not expressing it – | Over the course of a chosen rhythm, addition or suppression of ½ a unit of value –’.

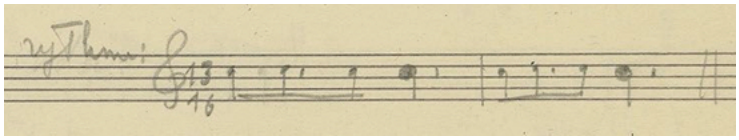
e. <u>11th-12th staves:</u>
‘indou + ½ unité de valeur (ou –unité de val.)’
Deśītāla [*turangalîla*, with values doubled] transcribed twice; then transcribed four times with a half-value added to each of its four durations, one time each, from last to first; then re-transcribed twice in its original form.



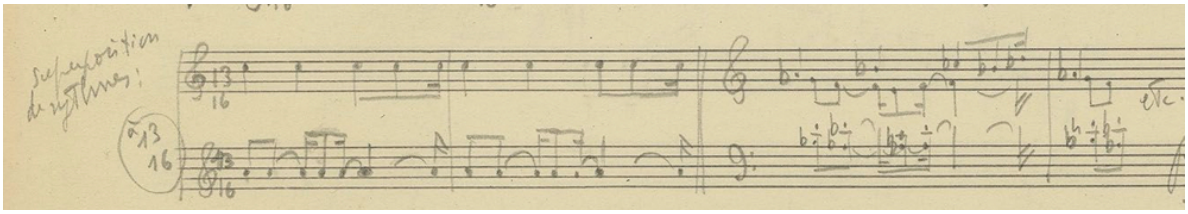
f. <u>13th stave (left):</u>
‘et 7/8 + ou – [semiquaver]:’ followed by bar of 13/16 and bar of 15/16 [the same 13/16 rhythm is used by Messiaen in ‘Le Verbe’ (*La Nativité du Seigneur*)];



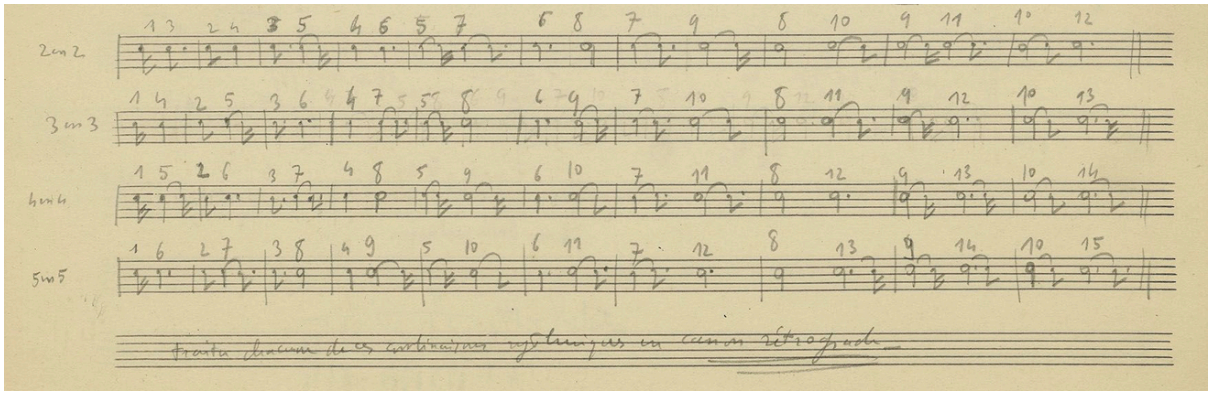
g. <u>13th stave (right):</u>
‘rythme’: 13/16, rhythm resembling *deśītāla* [*râgavardhana*, with values doubled, but final value halved]. Messiaen appears to have filled in the terminal dotted minim belatedly, halving its value and making it fit 13/16.

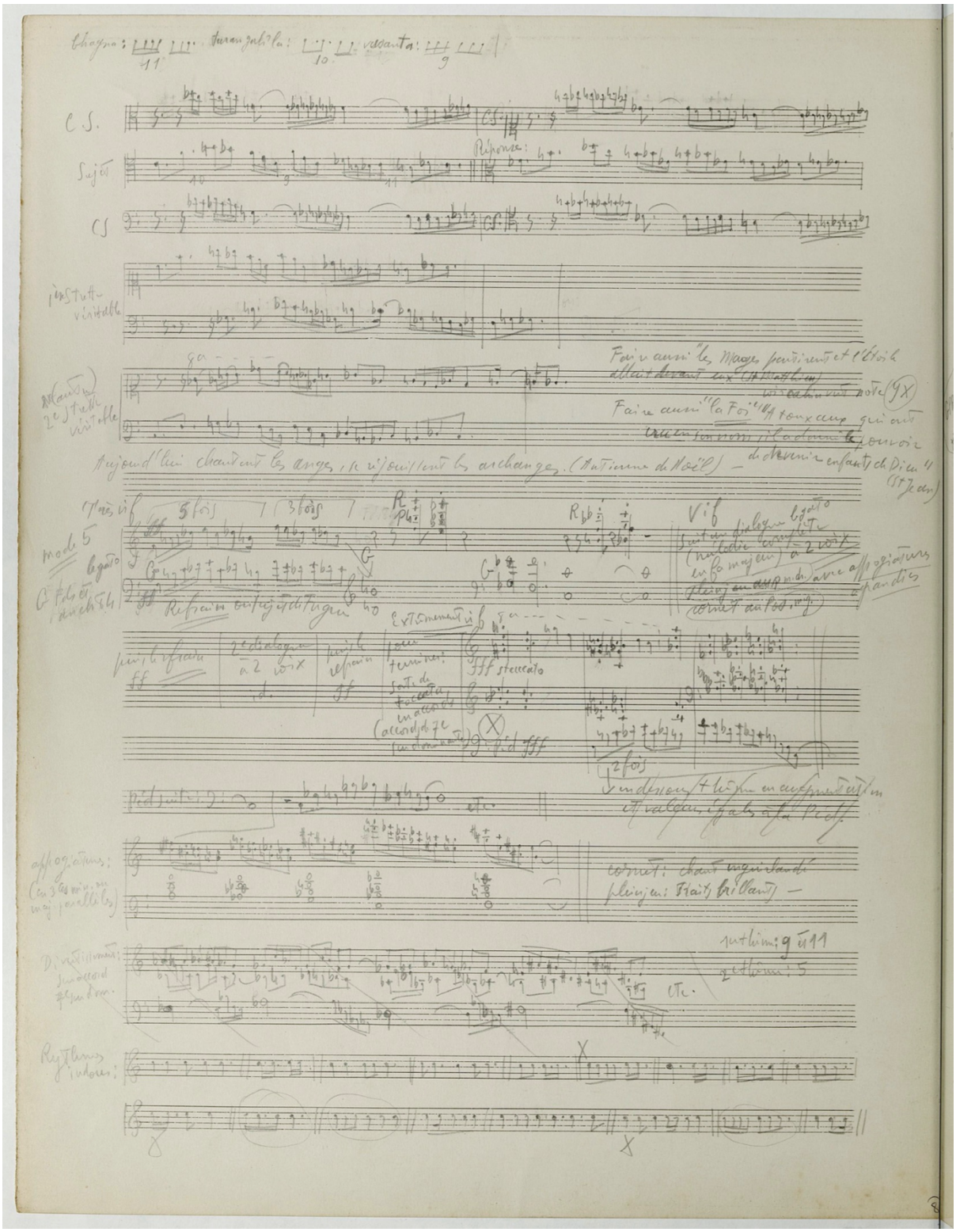


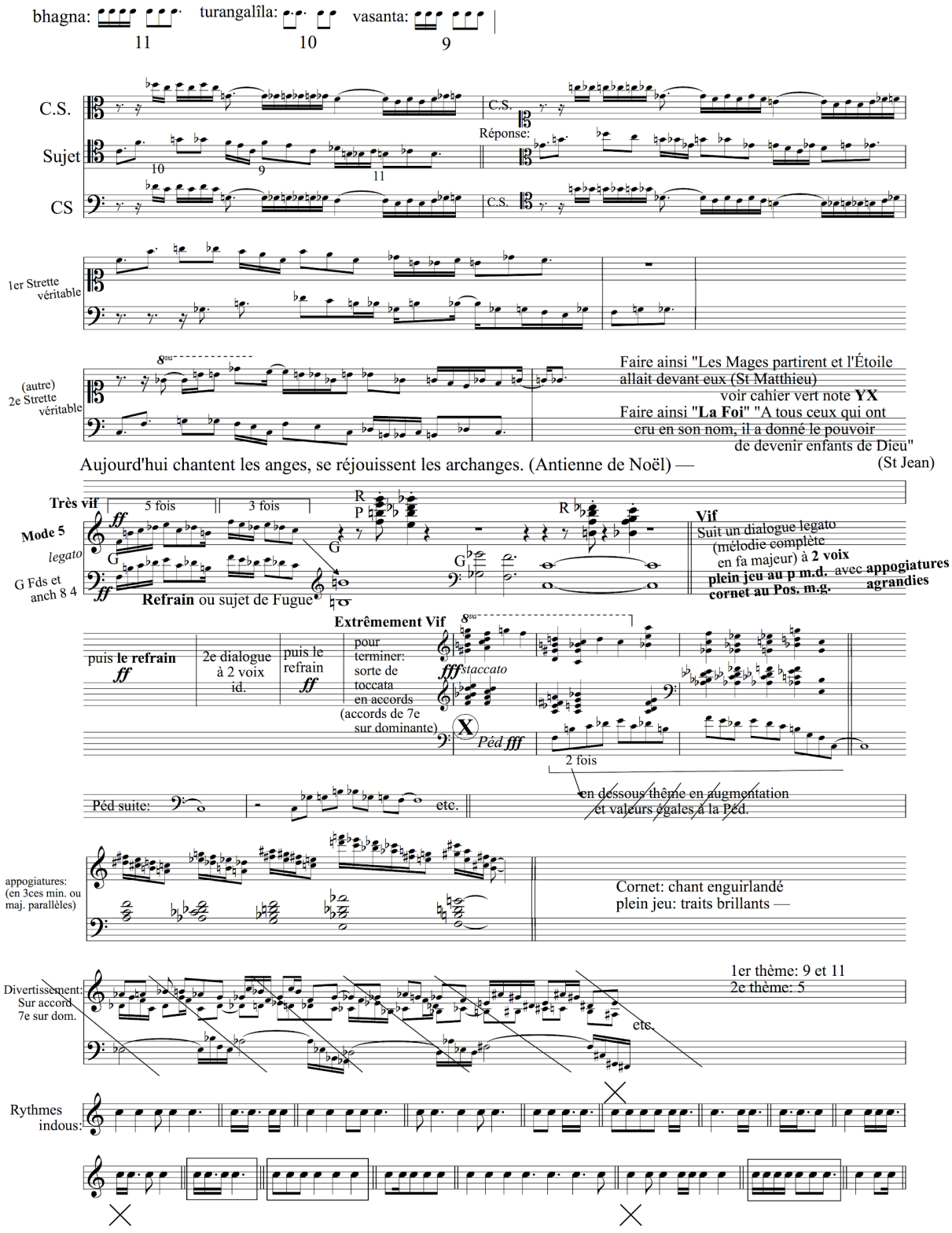
h. <u>14th-15th staves:</u>
‘superposition des rythmes’: Messiaen superposes the first rhythm of 13/16 (see (f), above) over the modified [*râgavardhana*] rhythm, for two bars; then, a third bar, with these two rhythms set to harmonies.



i. <u>16th-20th staves [later addition]:</u>
‘<u>Rythmes</u>’: four staves of twelve bars of durations (iambs); labeled with number of semiquaver units
16th stave: ‘2 en 2’, 1+3 | 2+4 | 3+5 | … | 10+12
17th stave: ‘3 en 3’, 1+4 | 2+5 | 3+6 | … | 10+13
18th stave: ‘4 en 4’, 1+5 | 2+6 | 3+7 | … | 10+14
19th stave: ‘5 en 5’, 1+6 | 2+7 | 3+8 | … | 10+15
‘traiter chacun de ces combinaisons rythmiques en <u>canon rétrograde</u>’




C.S.
Sujet
Réponse
Vif
Très vif
mode 5
Extrêmement vif
Fff staccato
2 fois
cornet: chant guirlandé
flûtes: Traits brillants
etc.



Figures D2*a*–*b*: Scan and transcription of Messiaen's experimentation with the d*eśītāla*s in sketches for *La Nativité du Seigneur* (F-Pn, fonds Messiaen, RES VMA Ms. 1554)

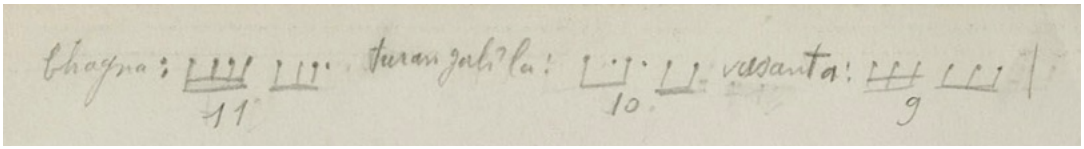
2. Sketch for *La Nativité du Seigneur* [F-Pn, fonds Messiaen, RES VMA Ms. 1554], p. 8

Date: ca. 1934

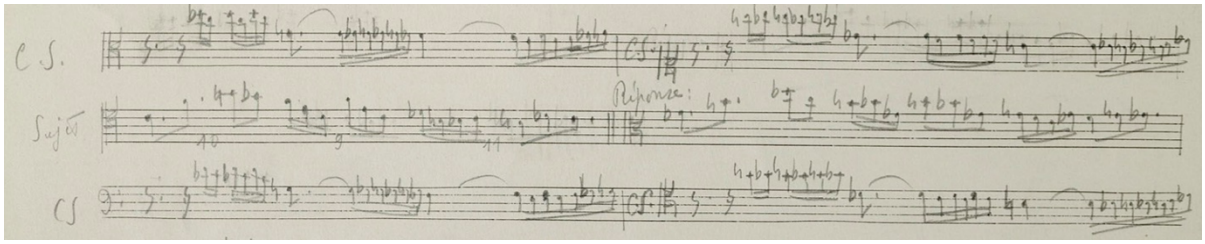
Context: Page contains early draft materials for *La Nativité du Seigneur* (1935), especially 'Les Anges'.

Description of Relevant Contents:

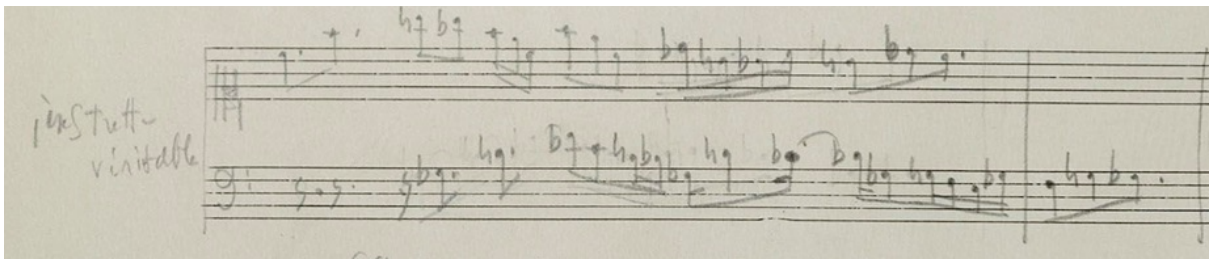
a. Upper Margin:
Three *deśītāla*s are transcribed and labeled: '*bhagna*', '*turangalîla*', '*vasanta*'; each *deśītāla* has its total duration (semiquavers) written beneath (11, 10, 9).



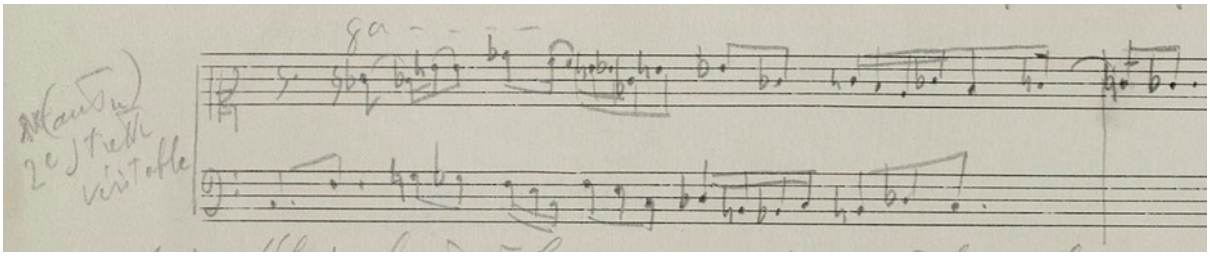
b. 1st-3rd staves:
Counterpoint-style exercise on three staves, with subject on middle stave; Subject and response are composed of three *deśītāla*s joined end to end: *turangalîla–bhagna–vasanta*; counter-subjects fill in with semiquavers.



c. 4th-5th staves:
'1ère Strette véritable': superposition of the subject upon itself; second entrance on the eighth semiquaver

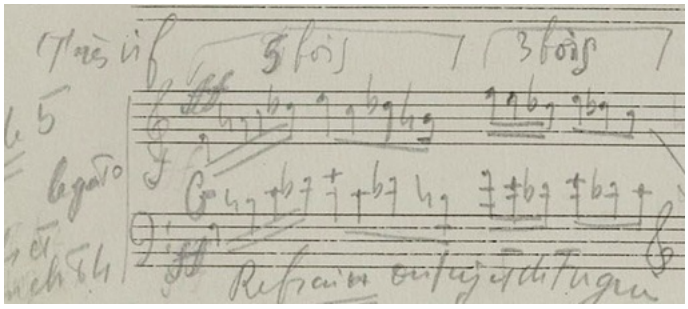


d. <u>6th-7th staves:</u>
‘2e (autre) Strette véritable’: superposition of the subject upon itself; second entrance on the fifth semiquaver

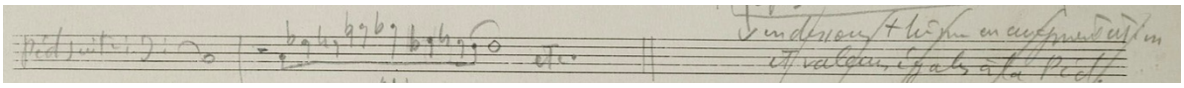


e. <u>8th stave:</u>
‘Aujourd’hui chantent les anges, se réjouissent les archanges. (antienne de Noël)’

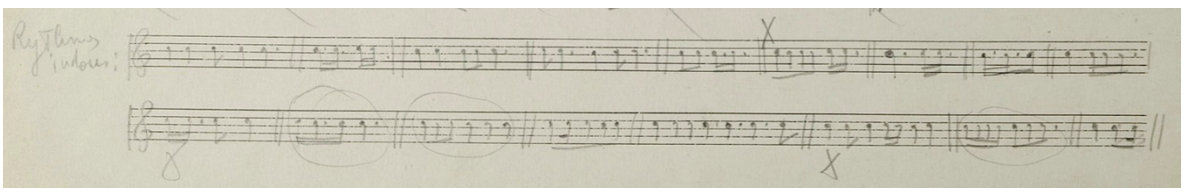
f. <u>9th-10th staves:</u>
Early version of opening of ‘Les Anges’, comprising *vasanta–bhagna*, with final value of *bhagna* subdivided



g. <u>13th-14th staves:</u>
Pedal plays same note sequence as (f), but in ‘valeurs égales’, suggesting that the note sequence might be a transformed borrowing



h. <u>19th-20th staves:</u>
‘Rythmes indous’: transcription of 17 *deśītāla*s, unlabeled; three are **circled**, three are marked with an X*
[*rangapradîpaka*, *turangalîla*, *rangâbharana*, *kîrti*, *sama*, *mallatâla**, *pratâpaçekhara*, *jhaîphâ*, *gajajhampa*, *laksmîça**, ***râgavardhana***, ***vasanta***, *simha*, *candrakalâ*, *skanda**, ***bhagna***, *râjamârtanda*].



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